Natural Disasters and Social Preferences: The Effect of Tsunami-Memories on Cheating in Sri Lanka

Department of Economics and Statistics
"COGNETTI DE MARTIIS"

Working Paper Series

03/14

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Trust and Cheating in Sri Lanka: The Role of Experimentally-Induced Emotions about Tsunami*

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March 4, 2014

Abstract

Through a field experiment in Sri Lanka I analyze the role of experimentally-induced memories of 2004 tsunami on behavior in a trust game in which personal notions of cheating are elicited. Micro-finance borrowers were randomly assigned to a treatment (control) group consisting in watching a video about the calamity before (after) playing. Trust game participants were asked how much to receive (return) in order not to (make the counterpart) feel cheated; in a survey they selected whether the video mostly reminded about solidarity, looting or the calamity experience. Results suggest a differential impact of emotional stimuli induced by the video-treatment on trustors' definition of cheating and trustees' intentional cheating. Among the treated, the probability trustors define cheating as a non-negative return on investment (i.e. receive no more than what invested) and trustees satisfy trustor's cheating notion (i.e. return at least what makes him/her not feel cheated) is higher when recalling solidarity than when looting and/or the calamity. As expected, there are no significant emotional effects of the video on control group's behavior. If the trust game replicates real investment decisions, identifying the channels through which emotional memories of a past shock affect behavior offer important insights on what hinders socio-economic transactions within post-disaster areas.

JEL Codes: C90, D03, O12.
Keywords: natural disaster, trust, cheating, return on investment, trustworthiness, emotions, random experiment.

*I gratefully acknowledge Angelico, C. Pagano, E. Agostino and N. Kurera for the precious support on field data collection. Etimos Foundation, Etimos Lanka and AMF is fully acknowledged for financial and logistic aid.

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1 Introduction

In the last years the experimental literature on social preferences in developing countries has witnessed a huge growth due to the increasing number of field-studies providing insights on what influences individuals' decisions in vulnerable contexts. In particular, a part of this literature is being investigating the impact of natural or man-made disasters on time, risk and social preferences by comparing affected and non-affected individuals or villages.[1] From the seminal articles by Elster (1998) and Loewenstein (2000) underlining the importance of emotions in economic decisions, another part of the experimental literature is being recently investigating how positive, negative or neutral affect induced in the lab influence individuals' behavior. This study bridges the two literatures by investigating the role of emotional memories of a past shock on socio-economic investment decisions of individuals exposed to frequent shock-recalling stimuli in their everyday life. The latter are likely to be subject to continuous incidental emotional states deriving from the external environment (i.e., for instance, broken roads, damaged houses, injured relatives, etc.) which might influence actual and expected behavior in different ways according to the emotional characteristics of the most salient affected/non-affected individuals' memory of the shock. In this work the impact of tsunami-related memories on social preferences in Sri Lanka is analyzed by testing whether and how emotions induced by a short videoclip refreshing the calamity experience affect individual's decisions in an anonymous one-shot trust game (Berg et al., 1995).

This paper offers an original contribution to the above-mentioned literature in many respects. First, this experiment is implemented 7 years after the shock so that it is capable to catch long run effects of the disaster on social preferences by exploiting the random variation in emotional status associated to different memories of the event. Specifically, in order to refresh the emotional stimulus of the past calamity, a sample of Sri Lankan micro-finance borrowers was showed a video on the 2004 tsunami[2]. Importantly, half sample was randomly assigned to

[1] Notably, these studies often reach different conclusions even when they focus on the same area or use a similar design. With respect to natural shocks, Callen (2010) find Sri Lankan villagers who are affected by the tsunami in 2004 are on average less impatient than non-affected while Cassar et al. (2011)'s findings concerning Thai victims go in an opposite direction. Eckel et al. (2009) and Willinger et al. (2013) provide experimental evidence of lower risk aversion respectively among Hurricane Katrina evacuees and individuals living Indonesian volcanic areas while Cassar et al. (2011) and Cameron and Shah (2011) document a significant increase in risk aversion among victims of natural shock (in Thailand and Indonesia, respectively). Whitt and Wilson (2007) report an increase of group cooperation in the aftermath of the Hurricane Katrina and similarly Cassar et al. (2011) find Thai tsunami-victims are more trusting and moderately more trustworthy than non victims. Conversely, Fleming et al. (2011) find the Chilean 2010 earthquake was detrimental for trustworthiness while Becchetti et al. (2012) find that the recovery aid restored the loss of altruism witnessed by Sri Lankan tsunami-victims after 7 years from the event. As far as manmade calamities are concerned, evidence of higher discount rates is provided by Voors et al. (2010) for individuals exposed to violence in Burundi while civil war is showed to be detrimental for trust and trustworthiness in Kenya (Becchetti et al., 2014) and Tajikistan (Cassar et al., 2013).

[2] The use of video clips to induce different emotions is common in psychological literature and, recently, it is being adopted also for economic experiments. For instance, Johnson and Tversky (1983) find that incidental affect (i.e., a mood state) induced by reading an article on newspapers influences risk judgments; see also, among others, Gross and Levenson (1995), Kirchsteiger et al. (2006) and Oswald et al.(2008) for similar studies on affect and behavior.

a treatment consisting in watching the clip *before* they could take decisions in a one-shot trust game while the remaining one to a control group who watched it *after* the game. Their decisions in the trust game are then compared on the basis of survey answers to a question about what scenario the video mostly reminded to them —participants were asked to choose among solidarity, looting and the calamity experiences which can be psychologically categorized respectively as positive, negative and neutral affect. The design of an emotional-based experiment frames this study in the economic and psychological literature on the role of mood manipulation on subjects' behavior and, more generally, on the importance of emotions in socio-economic decision making (see, among others, Loewenstein, 2000, Loewenstein and Lerner, 2003, Vohs et al, 2004 and Isen, 2008).[3] As an example, through different mood-manipulating treatments Ifcher and Zarghamee (2011) find subjects assigned to positive affect-inducing treatment show lower time preference than do those exposed to a neutral affect-inducing one. With this design, however, rather than inducing alternative moods with different videos, only one video treatment is implemented: all participants watched the same video clip and and their different emotional reactions to its content are collected in an post-experimental survey. A part from replicating the real-world situation in which all inhabitants are exposed to the same calamity but can react in different emotional ways to it, the treatment-control design based on projecting the video before-after the game allows also to control for potential individual's heterogeneous characteristics influencing emotional responses and/or experimental behavior.[4]

The second original contribution of this study hinges on a novel experimental feature. A standard trust-investment game (Berg et al. 1995) is implemented, where - in an anonymous setting - a player (trustor) is endowed with a sum of money and has to decide how much to send to the counterpart (trustee); the amount sent is tripled and the trustee chooses how much of it to return to the trustor. The novel modification of this standard game consists in the elicitation of subjects' notion of "being cheated" as the amount of money the trustor would need to receive in order not to feel cheated (*cheating threshold*) and the amount of

[3] In the growing economic literature on the role of emotions, positive affect has been shown to increase reciprocity (Kirchsteiger et al., 2006), productivity (Oswald et al., 2008), loss (Isen et al., 1988) and risk aversion (Isen and Geva, 1987); other studies provide experimental evidence on the influence of emotions on how people price products (Lerner et al., 2004) and on their attitudes related to trust (Dunn and Schweitzer, 2005).

[4] Eliciting subjects' mood after a movie is not a novel methodology for experimental psychologists. Andrade (2005) and Andrade and Ariely (2009) exposed participants to a 5 minutes clip followed by a task in which they were asked to describe a personal experience related to the movie; differently from this setting, their participants were assigned to angry or a happy affect-inducing treatments. Västfjall et al. (2008) find that the affect elicited by reminding a Swedish undergraduates about the 2004 tsunami disaster negatively influences their judgments of well-being, future optimistic thinking and risk perceptions. Importantly, they assume that recalling the tsunami automatically induces negative feelings; this, however, may not be always the case if victims' social preferences are positively affected by solidarity under the form of recovery aid (Becchetti et al., 2012). The emotional responses to a video clip can be of many types as the results from this paper suggest and often not exogenous to experimental behavior. For instance, Galasso et al. (2013) find heterogenous effects of informational video-treatments on formal childcare on 1500 Italian women's intended labor supply. For this reason, the before/after video design implemented in this study is also capable to capture positive, neutral and negative moods induced by the exposition to *all* subjects to the same tsunami-recalling clip and - differently from Västfjall et al. (2008) and Galasso et al. (2013) - to address potential bias deriving from non-exogenous emotional responses to it.

money the trustee would return in order not to make the trustor feel cheated (*expected cheating threshold*). Such a modification allows for the identification of how different emotional responses to a videoclip influence two original behavioral outcomes, namely the trustor's propensity to show a "less demanding" cheating notion and the trustee's propensity to "cheat intentionally", i.e. the probability the former has a cheating notion corresponding to a non-negative return on in investment (i.e. receiving no more than the amount sent in order not to feel cheated) and the probability the latter returns no less than the expected cheating threshold of the counterpart (i.e. giving back at least what (s)he believes would make the trustor not to feel cheated).[5] The elicitation of such cheating thresholds is important since it allows to i) control for a potential source of heterogeneity in individuals' behavior in the trust game originating from their implicit (and personal) notions of how the others should behave and ii) understand further if and how the elicited cheating notions respond to emotional changes caused by environmental shocks reproduced in the treatment. The elicitation of subjects' cheating notion has been first implemented by Butler et al. (2012) who shows in a lab-experiment involving Italian students that both parties in a trust game have personal notions of cheating and that these notions are determined by parentally-transmitted values. This paper builds on these findings by showing that such cheating notions may not be deterministic if they vary in response to emotional stimuli which in a real world are spread almost everywhere.[6]

Descriptive and econometric results provide evidence of a positive impact of recalling solidarity on the probability of playing i) as "less demanding" trustors with a cheating notion corresponding to a non-negative return of investment (i.e. receiving at least what invested in order not to feel cheated) and ii) as "reliable" trustees by returning no less than the expected cheating notion of the counterpart. Importantly, a significant effect of watching the tsunami video on game behavior is found only when accounting for differential emotional responses to the treatment. In fact, treated participants who mostly recall solidarity show a higher probability of having a cheating threshold not above the amount sent (returned) than those mostly recalling the calamity itself and/or looting experiences. Such effects cancel out when considering the video exposure only, i.e. without taking into account the different emotional reactions generated by it. If, on the one hand, selecting a sample of micro-finance borrowers may limit the external validity of the results, it improves however on their causal interpretation since, on the other, potential problems of unobserved heterogeneity (very common in the related literature) are reduced by the implementation of a before/after treatment assignment described above and

[5]The positive-return rule hypothesis is in line with the assumption (not tested) by Berg et al. (1995) that trustors feel cheated by a negative return on their investment (i.e. amount sent). Consistently with such return rule of trusting, more recently Bohnet and Zeckhauser (2004) and Bohnet et al. (2008) in eliciting subjects' betrayal aversion measure trustworthiness as the proportion of agents choosing the highest principal's payoff-yielding outcome. See also Butler et al. (2012) for a definition of cheating notions on the basis of personal return on investment rules.

[6]Examples of direct emotion manipulation are - for instance - advertisement campaigns run by public or private companies for their marketing strategy.

through the implicit process of bank screening and/or self-selection which ensures that micro-finance borrowers share most of the observable (and plausibly unobservable) characteristics (i.e., for instance, entrepreneurial skills, trustworthiness, etc.).

Under the assumption that the trust game replicates most of real-world investment decisions, the main results from this paper may have important economic implications. First, they provide experimental evidence that in post-disaster contexts characterized by asymmetric information and incomplete contracts artificially-induced positive affect can foster the social or economic transactions which would not take place because of the underlying risk of being cheated. Second, if "[...] *affective shocks are ubiquitous* [...]" as argued by Ifcher and Zarghamee (2011) this is even more so in contexts affected by a natural calamity in which villagers are likely to be reminded about it - and therefore emotionally affected - on a regular basis in their everyday life. Understating in what direction positive, negative or neutral emotions modify behavior in socio-economic transactions (reproduced by the trust game) has important policy implications, for instance, for national or international developing agencies working in post-disaster reconstruction activities as well as for institutional actors involved in the qualitative and quantitative improvement of local economic exchanges by fostering social capital. Third, if social capital is positively associated with economic growth (Keefer and Knack, 1997; Zak and Knack, 2001) and can be harnessed also through emotion manipulation, investigating the hidden and belief-based determinants of trust and trustworthiness can play an important role for the design of policies aimed at fostering economic growth and development in vulnerable areas.[7]

The remainder of paper is divided into five sections. In the second a detailed description of the research design is provided. In the third descriptive findings and results from non-parametric tests on balancing properties and behavior in the trust game are reported. The fifth section contains results and comments from the econometric analysis. The seventh section concludes by discussing the socio-economic implication of the main findings.

2 Research Design

The following subsections report a description of the context, the sampling scheme, the games implemented and the post-experimental survey. Notice that the research project is composed by three parts, i.e in the order i) an experimental session composed by a trust and a risky decision game, ii) a socio-demographic survey and iii) a final lottery game. The treatment

[7]The literature on the economic role of trust and trustworthiness is extremely vast. For instance, they are deemed as "lubricants" (Arrow, 1974) of the socioeconomic system, substitutes of formal contracts (Becchetti and Conzo, 2011), factors which significantly reduce transaction costs in socio-economic transactions by helping to "enforce cooperative agreements in bilateral sequential exchanges" (Greig and Bohnet, 2008) and improve quality of institutions (Putnam, 1993; La Porta et al., 1997), firm productivity (Chami and Fullenkamp, 2002) as well as the development of interethnic economic relationships and therefore economic performance (Alesina et al., 1999; Montalvo and Reynal-Querol, 2005).

- described in more details below - is based on watching a tsunami-videoclip before/after the decisions in the experimental session.

This paper focuses just on the outcomes of the trust game for two reasons, i.e. i) there are no effects of the treatment/control assignment and the consequent emotional responses on the behavior in the risky investment game[8] and ii) the risky decision game implemented to elicit time preferences is a very simplified version of standard games involving more sophisticated procedures to depict the entire risk aversion curvature through variation in lottery's payoffs and probabilities. Hence participants' choices in the risky decision and the lottery games can be interpreted as rough proxies for risk and time preferences and are added as controls in the regression analysis.

Translators were intensively trained on the questionnaire, the game and standard experimental rules until they reached a satisfactory level of comprehension before starting the fieldwork. The experimental sheets for each game, the entire questionnaire and the English script of the video are reported respectively in the Appendices A, B and C.

2.1 The context and the sampling scheme

The 2004 tsunami wave in Sri Lanka had devastating consequences. About two thirds of the country's coastline was damaged causing dramatic human (about 35,000 dead and 443,000 displaced people) and economic losses (24,000 boats, 11,000 businesses and 88,500 houses damaged). At the same time, soon after the shock the individuals living in the most affected areas were reached by recovery assistance programs run by several national and international organizations and NGOs. In November 2011 a research team implemented a field experiment in Sri Lanka with the support of local translators.

With respect to sampling, from a list of borrowers of a local micro-finance institution (Agro Micro Finance, hereon AMF) 390 borrowers were randomly selected and stratified by tsunami-victimization status[9] with the assistance of the AMF staff who personally came to know about the personal conditions of all borrowers soon after the calamity. Participants to the experiment were selected from three villages located on the southern coast of Sri Lanka, i.e. Galle, Matara and Hambantota. As outlined in the introduction, the limited external validity of results based on a sample of micro-finance borrowers can be compensated by a stronger internal validity in terms of their causal interpretation because of the reduced observed and likely unobserved sample heterogeneity. The initial screening by AMF and/or the potential self-selection into borrowing may reasonably reduce potential sample differences which may not be orthogonal to social preferences and/or emotional responses.[10]

[8] Results are omitted for reasons of space and consistency with the main focus of the paper but are available upon request.

[9] Note that after the data-cleaning the sample size reduced to 386 observations because 4 participants fail to complete the entire interview process.

[10] As confirmed by AMF staff, the sample is not likely to be affected by post-tsunami migration since soon after

2.2 The games and the survey

Selected borrowers were interviewed house-by-house simultaneously by two teams composed by an academic researcher and a translator. They were told they could real money by participating into a research project composed of three parts, i.e. an experimental session, a socio-demographic survey and a final lottery game. As far as the experimental session is concerned, two games were implemented, i.e. a trust game (TG) and a risky investment game (RG). The two games were randomly alternated to avoid order effects. The TG is a standard and simple game largely adopted in the experimental literature to elicit social preferences under the form of trust and trustworthiness in an incentive compatible way (see, among others, Berg at al. 1995). The game involves two players, a Trustor (TR) and a Trustee (TE).[11] In this experiment, the TG was conducted only for one single round and full anonymity condition was respected so that no participants could know the counterpart's identity or see the pool of participants involved in the experiment. Both the TR and TE were endowed with 300 LKR (the equivalent of 5.74 €) and TR had to select the amount x to send to TE. The strategy method largely used in the literature on trust games was implemented for trustees: TE received $3x$ and had to decide how much of it to return to the TR for each possible TR choice. According to the standard rational-utility theory, TR (TE)'s maximum payoff is reached by sending (returning) 0 LKR. Deviations from this equilibrium are usually interpreted as measures of trust for TR and trustworthiness for TE. Importantly, personal notions of cheating were elicited by asking the TR "*what is the minimum amount of money you would need to receive from the other player in order not to feel cheated?*", and to the TE "*what is the minimum amount of LKR you think you need to return in order not to make the first player feel cheated?*".[12]

The RG provided a behavioral measure of risk aversion through a simple game which did not require a high degree of participants' and translators' familiarity with numbers or probabilities. This game was implemented in a different context also by Charness and Genicot (2009) and Gneezy and Potters (1997) and is based on a single investment decision. In the experimental design of this paper, each participant was endowed with 300 LKR and had to decide whether keeping the money (option 1) or investing a fraction x of it in a risky asset with 50 percent probability of success (option 2). The investment would pay $3x$ if successful but 0 if not with the participant keeping all the uninvested units. The amount x can be interpreted as rough proxy of risk aversion (the higher the investment, the less risk averse being the individual).

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the calamity damaged (and, indirectly, non-damaged) individuals received incentives to stay under the form of i) incoming flows of recovery aid and ii) concession of micro-loans at favorable conditions. AMF's loan-portfolio suffered severe losses because of the insolvency of tsunami-affected individuals; however, soon after the calamity it was recapitalized in an effective way as the evidence provided by Becchetti and Castriota (2010, 2011) suggests.

[11] The wording was kept neutral in all games in order to avoid frame effects. For instance, the game was never presented as "trust game", but rather denominated "TG". Roles were phrased as "player 1" and "player 2" respectively for TR and TE.

[12] First order beliefs (FOBs) for TR and TE - i.e. the amount expected from the other player - were also elicited through money incentivized questions.

At the end of the experimental session, participants were asked to answer to standard sociodemographic and economic questions as well as to questions regarding their social attitudes, the kind and intensity of the damage they received in the 2004 on seven dimensions (i.e. personal injuries, injuries to family members, damages to house, economic activity, buildings/assets, working tools, raw materials) and of the recovery aid on eight dimensions (i.e. money, credit, food, medicines, raw materials, working tools, consumption, other). Importantly, participants were asked to select what the tsunami videoclip mostly reminded them about among three possible experiences, i.e. *solidarity*, *looting* and the *calamity* itself. Each option was also associated to evocative words referring to similar domains, i.e. respectively altruism/cooperation, opportunism, tsunami/natural disaster (see the questionnaire in the Appendix B).

The final stage of the whole experiment consisted of a lottery game through which participants' time preferences were elicited in a money-incentivized way. A simple approach similar to that implemented by Andersen et al. (2008) and Cassar et al. (2011) was adopted. Specifically, the respondent was told that jointly with other 390 local people (s)he would participate into a real lottery in which, if selected, s(he) could win from 10,000 to 14,142 LKR. The participant had to choose among two payment options, i.e. receiving a prize of 10,000 LKR after 2 months from the interview date (option A) or receiving a prize of 10,000 LKR + x after 8 months (option B). Each participant repeated the choice for eight potential lotteries in which x in option B was increased so to make the "patient" option more attractive.[13] The switch point - namely, the potential lottery number at which the participant switches from option A to option B - can be interpreted as a measure of impatience.[14]

2.3 Treatment assignment: the video-clip on tsunami

As far as the treatment assignment is concerned, *each* participant was showed a two minutes video consisting of visual and auditive description (i.e. images and a background voice) about the calamity and flows of the recovery aid received after the shock.[15] The source of exogenous variation in the emotional responses accounting for game decisions derives from the timing of the treatment assignment: half of the sample was randomly selected to watch the clip *before* starting the experimental section (i.e. before they actually could make decisions in the games) and the other half of the sample did it soon *after* the experimental part but before the survey

[13]Note that in a preliminary version of the experiment a more complex experimental scheme was designed to elicit risk and time preferences by using an approach more closely related to Andersen et al. (2008) and Holt and Laury (2002). Once in the field, I instead opted for the simpler one described above, thus sacrificing completeness/complexity for an adequate level of comprehension for both translators and participants. Consequently, more reliable data were collected since with the original framework each interview process would have lasted for more than two hours and a half with the risk of generating non reliable answers (because of the high stress induced to translators and participants).

[14]More specifically, the later (sooner) the switch from option A to B - i.e. the higher (lower) the switch number - the more (less) participants were considered as impatient.

[15]The video is available at the following link: `https://www.dropbox.com/s/8fgtfsl53ykroxq/Sri%20Lanka%201.mov`. An English version of the script is reported in the Appendix C.

(i.e. after they took decisions in the games). Hereon the former is considered as treatment group and the latter as control.

Such a before-after treatment design allows to isolate and control for possible non-random personal unobserved characteristics which can influence either emotional responses to the video (i.e. answers to the question about what the video mostly reminded of) or decisions in the games or both. In particular by controlling for emotional responses before and after the game it is possible to account for potential group-heterogeneous traits which might bias the main findings. However, as outlined in the next sections, participants do not significantly differ in terms of observable characteristics when compared by their emotional responses to the video exposure.

2.4 The protocol

At the beginning of the interview, the participant was told about the sequence of the interview process, i.e. an experimental session composed of two games, a survey and a final lottery. (S)he was informed that (s)he would be paid just for one randomly extracted game. The game was extracted before (s)he played so that her/his decisions in the game could not affect game-selection for payment.

As far as the TG is concerned, the participant was told that, if that game would be extracted for payment, (s)he could earn real money (up to 1200 LKR) according to her/his own or the matched counterpart's choices in the game. The game was explained and the participant was informed about her/his role, i.e. TR or TE. Then the game started and the participant reported her/his choices. If the participant was chosen to be a TE, the strategy method described above was implemented by asking him/her how much s(he) would return to the TR for each possible TR's send-choices (i.e. 30, 60, ..., 300 LKR) considering that each possible TR's amount sent would be tripled before getting to the TE. If the participant was chosen to be a TR, (s)he was asked how much of the endowment (300 LKR) (s)he would send to the TE knowing that it would be tripled and that the TE could choose to return some or no money back. For both players personal cheating notions were finally elicited through the questions mentioned above.[16]

The protocol was similar for the RG. Participants were told they could earn up to 900 LKR (if the RG was selected for payment) depending on their choice and the outcome of a fair coin that would be tossed at the end of the whole interview. Then the game was explained and the participant made his/her decision. When the experimental session ended, the socio-demographic survey was delivered and, finally, the lottery game was implemented as described above.

Note that if the participant was assigned to the treatment group, (s)he watched a video on the interviewer's laptop *before* playing the trust and the risky decision games. If, instead, (s)he was assigned to the control group, the video was showed *after* the participants played the TG

[16]Players' FOBs were elicited and 50 LKR paid for a correct guess.

and RG but before the survey and the lottery game.

2.5 Game payments

At the end of the final lottery game the interviewer opened the envelope containing the game extracted for payment. If the game was the RG, s(he) tossed the coin and payed the subject according to her/his choice if (s)he opted for option 2; we payed 300 LKR otherwise.

If the game selected for payment was the TG, to make the payment feasible the research teams exchanged MMS messages containing a photograph of their player's TG answer sheet. The TR was showed the answers of the matched TE on the researcher's mobile phone which were collected and sent by the researcher of the other team. The TR was then payed according the amount (s)he sent and the corresponding TE's return-choice for that amount. Similarly, the TE was showed a photograph of the answer sheet of the matched TR and paid accordingly. The TE's and TR's final payoff was calculated considering also their remaining game endowments plus a participation fee of 200 LKR.[17]

As far as the payment for the lottery is concerned, participants were informed that when all the other interviews were finished, researchers would extract one out of all the names of the people interviewed; the lucky person would be the only winner of the lottery. Then, researchers would extract from another urn a number from 1 to 8 and pay the winner only according to his/her choice in the potential lottery number equal to the extracted one.[18]

Despite the potential interviewer-bias due to the presence of a translator, truthful reporting is ensured by the large amount at stake given participants' standards of living. Even ignoring the payment from the lottery, the maximum payoff from the RG game for instance (900 LKR) represents in the sample about 51 percent of the median per capita monthly food expenditure; the percentage is even higher for the TG where the maximum payoff is 1200 LKR.[19]

3 Descriptive analysis

For the sake of clarity, Table 1 reports a detailed explanation of all the variables used in the descriptive and econometric analyses.

[17]This procedure guaranteed anonymity to a greater extent than lab experiments where participants can usually see the pool of potential players they would be matched with. However, since answers can be seen by the interviewer, participants may also think they can be manipulated before reaching the counterpart in order to make payments more advantageous to the experimenters. Such potentially confounding belief can be captured by answers to the general trust questions which, when used as controls in the main regression analysis, do not significantly explain behavior in the TG. Moreover, since in this study groups of individuals are compared on the basis of a common exposure to a treatment and on their reactions to it, such a bias if present would affect all groups indistinctly so that the observed differences in behavior cannot be fully explained by it.

[18]For example, if the number selected was 5, researchers payed the winner the amount corresponding to his/her choice in lottery 5. If the winner in lottery 5 chose to receive "10,000 after two months", researchers would transfer that amount through Western Union after two months from his/her interview date.

[19]Even if the presence of translators would have influenced participants' reported decisions, this potential confounder does not fully capture the different behavior in the game between treated/non treated participants since all of them would be exposed to the same source of bias.

Insert Table 1 about here

In the following subsections the sample socio-demographic characteristics are commented jointly with the results about the satisfaction of balancing properties on emotions and assignment to the video treatment. Then subjects' differential behavior in the trust game is illustrated according to their emotional reactions, to assignment to the video before/after playing and to both.

The maintained hypotheses in the descriptive and econometric analysis can be summarized as follows:

- *Hypothesis 1*: individuals are emotionally affected by the video in different ways, i.e. positively (by recalling solidarity), negatively (by recalling looting) and neutrally (by recalling just the calamity experience itself);

- *Hypothesis 2*: on the basis of their heterogeneous emotional reactions, treated participants respond differently in the trust game, i.e. positive (negative and/or neutral) affect induced by the clip increases (decreases) the probability that:

1. trustors have a "less demanding" cheating threshold corresponding to a non-negative return on investment rule, i.e. receiving no more than the amount invested in order not to feel cheated;
2. trustees play "reliably" by returning at least what they believe the trustors would receive in order not to feel cheated.

- *Hypothesis 3*: given the structure of the experimental design, no significant effects of emotional responses are observed in the control group on trustors' and trustees' game behavior.

3.1 Sample characteristics and balancing properties

The demographic statistics reported in Panel A of Table 2 show that participants have on average 47 years, 4.5 household members and 10.5 years of schooling. The majority of them (83 percent) are married and slightly more than a half (54 percent) suffered from at least one type of damage from the tsunami (variable *Damaged*) while about 35 percent received at least one type of recovery assistance (variable *Aid*); 30 percent of the sample declares to have problems in providing daily meals and most of them are employed in the trading and manufacturing sector (37 and 32 percent respectively).

Insert Table 2 about here

As showed in Panel B of Table 2 most participants were reminded about solidarity (46 percent) while those recalling mostly looting and the calamity experience are respectively 29 and 25 percent of the sample. Such a difference confirms the first hypothesis since - because

of observable or unobservable personal traits or experiences - people respond in emotionally different ways even if exposed to the same stimulus.[20]

Panel C of Table 2 documents that almost 70 percent of participants are relatively impatient and, on average, 60 percent of the amount at disposal is invested in the risky option (variable *Riskloving*). Consistently with many trust game outcomes in the experimental literature, on average trustors sent about one third or their initial endowment; the trustees returned an amount (averaged over all the strategy choices) corresponding to 20 percent of the tripled maximum amount the trustor could send (variable *Mean_Return*). As far as the cheating thresholds are concerned, in order not to feel cheated trustors need to receive on average 30 percent more than the mean amount sent –the difference in absolute terms between the average trustor's contribution (variable *Send*) and the average trustor's cheating threshold (variable *TR_cheat*) is 41.61 LKR. Trustees on average believe that the trustors' cheating notion corresponds to receiving at least 173.26 LKR (variable *TE_cheat*), i.e. 13 percent higher than the actual average TR's cheating threshold but 5 percent lower than the average TE's return choice. Interestingly, the average fraction of "less demanding" trustors defining a cheating notion according to a non-negative return on investment rule (i.e. with a cheating threshold at least equal to the amount invested - variable $Pr(TR\_cheat \leq Send)$) is 40 percent while "reliable" trustees are on average 50 percent (i.e. those returning on average no less than their expected TR's cheating threshold - variable $Avg\_Pr(Return \geq TE\_cheat)$)[21].

Table 3 report results from non-parametric tests on satisfaction of the balancing property on treatment assignment (Panel A) and emotional reaction to the video (Panel B). Under both comparisons individuals are not significantly different at 5 percent level on most of their observable sociodemographic characteristics.[22] This finding - also confirmed in the econometric analysis - further ensure the causal interpretation of the role of video-induced emotions on the behavior in the game.

Insert Table 3 about here

[20]This is the reason why only one video-treatment was implemented (and differential emotional reactions to it were elicited) instead of exposing subjects to different video-treatments. In the latter case the chance of having differential (uncontrolled) emotional responses would have been higher - as the evidence by Galasso et al. (2013) would suggest - and therefore not helpful for a causal interpretation of the impact of emotions on game behavior.

[21]Note that the variable $Avg\_Pr(Return \geq TE\_cheat)$ has been built by generating an indicator equal to one whenever TE returned in each strategy choice no less than the expected TR's cheating threshold (i.e. variable $Pr(Return \geq TE\_cheat)$); then the indicator has been averaged over all the eleven TE's choices so to have the TE's mean (strategic) propensity to play as a "reliable agent".

[22]The only variables on which the confronted groups are statistically different at 5 percent significance level are i) the village dummies in comparisons by treatment assignment and ii) schooling years and *Problems_meal* in comparisons by emotional reactions. Arguably, this may not represent a bias in the estimates since i) all these variables are controlled for in the regression analysis, ii) the magnitude of the difference on schooling years by emotional responses is not large (i.e. just one year) and iii) the before/after treatment emotional response (variable *recall_solidarity*) is accounted for in the regression analysis. With this last check the potential endogeneity of the "recall" variables to game behavior is controlled for.

As a further robustness check, the previous tests are repeated by comparing sample characteristics by emotional responses separately for those who watched the video before playing the game (treatment group) and for those who did it after (control group). Results are reported respectively in Panel A and B of Table 4 and confirm the previous findings. A part from schooling years and the number of household components for which the difference in magnitude is very small, treated subjects - when compared by emotional responses - are similar on most observable (and, likely, unobservable) characteristics. Similarly, control participants do not statistically differ in terms of their emotional reactions on most of the characteristics considered so far.

Insert Table 4 about here

Incidentally, under these previous preliminary tests treated and non treated participants do not show significant differences on their tsunami damage status (variable *Damaged*) nor the aid received (variable *Aid*). Moreover, no significant differences are found when comparing them by emotional reactions. Tables 3 and 4 also show risk attitudes do not significantly differ by video or emotional responses (variable *Riskloving*) while - as showed below - trust game variables do change in response to the treatment. For this reason, as outlined before, the rest of the analysis concentrates on the behavioral variations in the trust game and use risk (and time) attitudes as controls.[23]

3.2 Behavior in the TG by treatment and emotions

Non-parametric tests are implemented to check whether trust game behavior was affected either by the treatment or by emotional reactions or by both. Results are reported in Table 5 where answers in the TG are compared separately by the treatment assignment (Panel A) and the emotional responses to the video (Panel B). They are finally compared by emotional responses restricting the sample alternatively to the treated (Panel C) and to non-treated (Panel D) only.

Insert Table 5 about here.

Results from the non-parametric tests reported in Table 5 suggest in general that the video treatment was effective in altering decisions in the TG only by inducing different affect in those exposed to the video *before* playing the game.

[23]This secondary finding - also confirmed in the following econometric analysis - is based on field data collected seven years after the calamity and hence does not necessarily contradict the hypothesis that the shock may have affected subjects' preferences few years after the event as showed by Callen et al. (2010) or by Cassar et al. (2011). It however documents that in a longer run perspective such an effect is not present in this study. Moreover, as suggested by Becchetti and Castriota (2010, 2011) tsunami-damaged villagers seem to have converged almost fully to non-damaged ones in terms of objective and subjective well-being after the calamity.

First, the treatment looks ineffective in altering TG behavior (Panel A) when the emotional reactions induced by it are not considered, whereas the latter *per se* do not explain much of the TG behavior (Panel B) when the treatment effect is not considered. Therefore, the only comparison under which one should expect a statistically significant change in the TG behavior is the one in which treated subjects are confronted by their emotional reactions while no significant changes in the TG should be observed when looking at the non-treated. This is actually the case as suggested by the results in Panels C-D of Table 5 which provide preliminary support to the third hypothesis.

Second, the game variables significantly affected by the treatment and emotions are the proportion of "less demanding" trustors and the proportion of "reliable" trustees which are in both cases higher for treated participants recalling solidarity –see variables $Pr(TR\_cheat \leq Send)$ and $Avg\_Pr(Return \geq TE\_cheat)$ in the Panel C of Table 5. In particular, when recalling solidarity the treated trustors are 22 percent more likely to expect no more than what invested in order not to feel cheated than when recalling looting or the calamity. Similarly, treated trustees are 12 percent more likely to return an amount of money larger than (or equal to) what they believe the trustor should receive in order not to feel cheated when the video mostly reminded them about solidarity than when about looting or the calamity.

Insert Figure 1 about here

Kernel density of the ratio between the trustors' cheating thresholds (variable *TR_cheat*) and the amount they invest (variable *Send*) by treatment and emotional responses split are reported in Figure 1. They confirm the preliminary findings on the differential impact of emotional reactions on treated TR's cheating notions defined according to a non-negative return on investment rule. In particular, the treatment was effective in generating a differential impact of emotions on game behavior as documented by the different distribution of $\frac{TR\_cheat}{Send}$ for those recalling solidarity vs. those recalling looting or the calamity when the video is showed before they play. In other terms, the proportion of treated trustors with less demanding cheating notions (i.e. $\frac{TR\_cheat}{Send} \leq 1$) is higher when they recall solidarity than when they recall looting and/or the calamity; in the latter case they tend to prefer a more demanding cheating notion (i.e. $\frac{TR\_cheat}{Send} > 1$). The distributions statistically differ by emotional reactions only in the treated sample as confirmed by the Kolmogorov-Smirnov equality-of-distributions test (p-value = 0.012); as expected they do not in the control group (p-value = 0.870).

Insert Figure 2 about here

When considering the kernel density of trustees' returned amounts (variable *Return*) over what they believe trustors would need to receive in order not to feel cheated (variable *TE_cheat*), also in this case the video was effective since the proportion of treated trustees returning no

less than their counterpart's expected cheating thresholds (i.e. $\frac{Return}{TE\_cheat} \geq 1$) is higher when recalling solidarity then when recalling looting or the calamity experience (see Figure 2). The distributions are statistically different in treated sample but as expected they are not in the control one (p-value of Kolmogorov-Smirnov equality-of-distributions test = 0.002 for treated participants while p-value = 0.599 for control ones).[24]

Insert Figure 3 about here

Overall also the second hypothesis seems to be confirmed as documented by these preliminary results. The positive affect from recalling solidarity in the tsunami video increases the treated trustors' (trustees') propensity to behave in the TG as "less demanding" ("reliable") agents: relative to recalling looting or the calamity experience, recalling solidarity increases the probability that i) trustors expect back no more than what invested and ii) trustees return at least what - in their opinion - would satisfy trustors' cheating notion.

4 Econometric analysis

This section reports an econometric validation of the preliminary findings regarding the positive effects of recalling solidarity on the propensity to play as "less demanding" trustors and "reliable" trustee when accounting for i) potential endogeneity in emotional responses, ii) time and risk preferences and iii) differences in sociodemographic and economic characteristics of the sample.

4.1 Description of the model

As showed in equation 1, the estimated model for trustors is a standard probit in which the dependent variable is their propensity to define a "less demanding" cheating notion consistently with a non-negative return on investment rule (i.e. they would need to receive no more than what invested in order not to feel cheated):

$$\begin{aligned} Pr(TR\_cheat \leq Send)_i = \alpha_i + \beta_1 Video_i + \beta_2 Recall\_solidarity_i + \\ + \beta_3 Video_i \times Recall\_solidarity_i + \gamma_k \sum_{k=1}^{2} TC_{k,i} \\ + \delta_h \sum_{h=1}^{2} GC_{h,i} + \theta_m \sum_{m=1}^{17} DC_{m,i} + \epsilon_i \end{aligned} \tag{1}$$

[24]One might argue that - because of the implementation of the strategy method - the trustee's expectation about the counterpart's cheating threshold maybe based on his/her first order beliefs (FOB), i.e. on what (s)he actually expects the trustor to have sent. For this reason, Figure 3 reports the kernel density of $\frac{Return}{TE\_cheat}$ restricted to cases in which TR_Send is equal to the trustee's FOB; thus, the $Return$ variable considers in this case only the trustee's return choice in response to the TR's possible contribution (TR_Send) equal to what s(he) actually believes the trustor has sent to him/her (FOB). The preliminary results from the more general case commented above (Figure 2) are confirmed also under this further restriction (see Figure 3). Note that players' FOB will be also controlled for through a robustness check in the econometric analysis.

For each trustor i, *Video* and *Recalling_solidarity* are indicators respectively for the treatment assignment (equal to one if (s)he watched the video before playing in the TG) and the emotional response (equal to one if (s)he mostly recalled solidarity and zero if looting and/or the calamity). The interaction between these two indicators captures the impact of the emotional responses on TG behavior for the treated while the *recalling_solidarity* dummy partials out the potential unobserved heterogeneity between those recalling solidarity (positive affect) and those recalling looting or the calamity (negative or neutral affect). TC are two dummies controlling for the tsunami damage/non-damage status (variable *Damaged*) and whether the individual received at least one type of recovery assistance after the calamity (variable *Aid*). GC are two behavioral proxies for time (variable *Riskloving*) and risk preferences (variable *Impatient*) elicited in the RG and the lottery game. DC is a set of standard controls for individual's sociodemographic and economic characteristics including age, gender, years of education, village dummies, marital status dummies, household's monthly food expenditure (*Food_exp_std*) plus a dummy capturing poor economic conditions (*Problems_meal*), the number of household's components (*N_house_members*), a proxy for social preferences (*Trustindex*) and for involvement in social activities (*Sociability*), a variable measuring borrower's seniority (i.e. the number of loan cycles - variable *Loancycle*) plus three dummies for the respondent's working activity (*Trading*, *Fishery* and *Manufacturing*).

The estimated model for trustees is a standard probit similar to that in eq. 1. To exploit information from the full strategy of trustees, the dependent is now the TE's propensity to respond "reliably" to each possible amount the trustor can send consistently with his/her expected TR cheating threshold. In particular, the full model can be described by the following equation:

$$\begin{aligned} Pr(Return \geq TE\_cheat)_{ij} = \alpha_{ij} + \beta_1 Video_{ij} + \beta_2 Recall\_solidarity_{ij} + \\ + \beta_3 Video_{ij} \times Recall\_solidarity_{ij} + \gamma_k \sum_{k=1}^{2} TC_{k,ij} + \\ + \delta_h \sum_{h=1}^{2} GC_{h,ij} + \theta_m \sum_{m=1}^{17} DC_{m,ij} + \phi TR\_send_{ij} + \epsilon_{ij} \end{aligned} \tag{2}$$

For any i-trustee an indicator variable named $Pr(Return \geq TE\_cheat)$ is defined as being equal to one if, for each j-amount the trustor can send, (s)he returns (*Return*) at least what (s)he believes the trustor should receive in order not to feel cheated (*TE_cheat*). To control for the changes in TE's returned money due to the increasing amount of the TR possible options, a variable equal to the jh-possible TR's contribution (i.e. 30, 60, ..., or 300) is introduced (TR_send). Since the sample is now composed by 193 trustees and 11 possible TR choices (i.e. j=11) with a total of 2,123 observations, when estimating eq. 2 standard errors have been clustered at the individual level.

Equations 1 and 2 are estimated under different specifications by introducing stepwise the above-mentioned controls and also by restricting the sample only to the treated or to the non-treated participants. Econometric results are report and comment first for the sample of trustors and then for that of the trustees.

4.2 Estimation results: Trustors

Estimation results for the sample of trustors generally confirm the ones from the previous descriptive analysis and are reported in Table 6. The first column documents that - without accounting for the different emotional variation induced - the video treatment alone does not significantly explain any variation in the propensity of playing as a "less demanding" trustors. In the second column the treatment seems to increase this propensity only for those who recall solidarity relatively to those who recall looting or the calamity. This effect is robust to the introduction of tsunami (column 3) and game (column 4) controls.

Insert Table 6 about here.

To test for the robustness of this finding, the specification in column 4 is re-estimated separately for the treatment (column 5) and the control group (column 6). Results show that positive affect (recalling solidarity) for the treated increases their propensity to have cheating thresholds not above their investment of about 30 percent more than the negative/neutral affect (recalling looting/calamity) (variable *Recall_solidarity*, column 5). As expected, positive affect does not significantly explain such propensity when the video is showed after playing (column 6).

As a further robustness check all the sociodemographic and economic controls mentioned above are introduced. Estimations results are reported in columns 7-9 and confirm the positive impact of recalling solidarity on the propensity for treated trustors to choose a "less demanding" cheating rule. Notice that the variable *Recall_solidarity* in columns 2, 4, 6 and 7 captures the potential unobservable endogeneity due to non-random emotional responses to the video; since it is statistically insignificant in all specifications, a channel from the video to the emotional reaction and from the latter to the TR propensity to send more than (or the same as) the personal cheating threshold exists and can be interpreted in a causal way.

As pointed out by Ai and Norton (2004), for a correct interpretation of the interaction effect in non-linear models it is necessary to compute a different formula to that used for linear models. Specifically, the full interaction effect in non-linear models is the cross-partial derivative of the expected value of the dependent variable. By using an ad-hoc Stata package to compute the interaction effect according to suggested procedure (i.e. `inteff`, see Norton et al., 2004), the mean effect of *Video*Recall_solidarity* is estimated to be .31 for the full model (i.e. that in

column 7, Table 6) with a z-stat equal to 2.033 and .38 for the model with only game controls (i.e. that in column 4, Table 6) with a z-stat equal to 2.651.

4.3 Estimation results: Trustees

Estimation results for the sample of trustees confirm the preliminary descriptive findings and are reported in Table 7. In particular, a significant effect of the treatment on trustees' propensity to respond "reliably" - given their expected TR cheating threshold - is found only through the positive affect induced by recalling solidarity.

Insert Table 7 about here.

Specifically, the interaction between the treatment and the positive affect (variable *Video* * *Recall_solidarity*) is significant and positive in column 3 and robust to the introduction of tsunami (column 4), game (column 5) and sociodemographic controls (column 9). When restricting the sample to the treatment (columns 5 and 10) and control group (columns 6 and 11), the positive emotional effect is significant only for the former while - as expected - it is not for the latter. In particular, the treated trustees' propensity to respond "reliably" rises of about 20 percent more if they mostly recall solidarity than if they mostly recall looting and/or calamity.

In addition, since such propensity is increasing in the TR's possible send-choices (variable *TR_Send*), by exploiting the information on TE strategy collected through the strategy method one can test whether the positive emotional effect is harnessed for *high* (above 210 LKR) or *low* (below or equal to 210 LKR) possible TR contributions. Findings are reported in columns 7-8 (12-13) without (when) introducing socio-demographic controls and clearly show that the positive emotional effect is significant only for high trustor's possible contributions. This effect can be due to positive reciprocity of trustees who feel morally or socially obliged to reward acts of trust when these correspond to large amounts (see, among others, Fehr and Gächter, 1998, McCabe at al., 2003, Greig and Bohnet, 2008).

Importantly, notice that also trustee's estimates do not report evidence of potential endogeneity in emotion reaction since the variable *Recall_solidarity* is insignificant in all the specifications where the treatment (*Video*) and the interaction term (*Video*Recall_solidarity*) are present (columns 2-4, 7-9, 12-13).[25]

Similarly to what done for trustors, by using the above-mentioned Stata package to compute the correct interaction effect (Norton et al., 2004), the mean effect of *Video*Recall_solidarity* is estimated to be .14 for the specification in column 4 (Table 7) with a z-stat equal to 1.850 and .20 for that in column 8 (Table 7) with a z-stat equal to 2.039.

[25] In order to control for trustee's expectations about the trustor's contribution, each specification is augmented with the trustee's FOBs and the main findings do not change. Results are robust also to i) the introduction of trustor's FOBs in those specifications regarding the sample of trustors and ii) the introduction of an additional interaction term *Video*Damaged* both in the sample of trustors and of trustees. Estimation results from all these robustness checks are omitted for reasons of space but available upon request.

5 Discussion

The importance of emotions is not a novel discovery for the psychological literature (see, for instance, Isen et al., 1976). Emotions are recently becoming a relevant topic also for economists interested in testing the effect of individuals' mood on their socio-economic decisions (see, among others, Elster, 1998, Loewenstein, 2000, Loewenstein and Lerner, 2003, Kirchsteiger et al., 2006, Oswald et al., 2008, Lerner, et al., 2004, Dunn and Schweitzer, 2005, Ifcher and Zarghamee, 2011 and Västfjall et al., 2008). Reasonably, affective shocks - even if temporary - are everywhere and depending on their intensity they may influence the way people take decisions (Cohen and Andrade, 2004 and Wegener and Petty, 1995).

People may often respond differently to the same emotional stimulus on the basis of personal subjective (and, likely, unconscious) traits which are not always observable to the econometrician. For instance, inhabitants of an area exposed to an unexpected natural disaster might be subject to continuous incidental emotional states deriving from the external environment (i.e., for instance, when looking at broken roads, damaged houses, injured relatives, etc.). Such states can be in turn affected by different memories of the past shock to which affected/non-affected people can react in a very specific way depending on their personal traits and/or experiences. Most of the lab-experiments using films to artificially induce moods do not fully take into account the possibility that individuals' emotional responses after a film can go to different (or even opposite) directions. Back to the previous example, this maybe the case of individuals exposed to a past natural shock which - when reminded about it - can be affected in their behavior by positive, negative or neutral moods depending, for instance, on whether they mostly recall experiences of solidarity, looting or just the calamity itself. Evidence of heterogenous reactions to a common informational video-treatment is provided, among others, by Galasso et al. (2013).

What is the impact of different emotional states on decisions is still an open question, especially for what concerns inhabitants exposed to violent natural or manmade shocks in the past. In this respect there is a growing strand of the experimental literature in development economics which focuses on the direct impact of these shocks on affected/non-affected individuals' preferences, i.e. for instance trust and cooperation (Becchetti et al., 2014, Cassar et al., 2011 and 2013, Cameron and Shah, 2011, Whitt and Wilson, 2007, Fleming et al., 2011), time and risk attitudes (Callen, 2010, Eckel et al. 2009, Voors et al., 2012, Willinger et al., 2013), altruism (Becchetti et al., 2012), etc. To my knowledge, there are no current studies testing if and how people exposed to a past calamity modify their social behavior when their mood is manipulated through a video refreshing the shock experience.

To investigate the nexus between positive affect and the probability of playing as "less demanding" trustors and "reliable" trustees, I conducted a random-assignment experiment on

a sample of micro-finance Sri Lankan borrowers affected/non-affected by the 2004-tsunami in which personal cheating notions are elicited (as in Butler et al., 2012) after artificially manipulating subjects' mood. All subjects watched a short videoclip on the 2004-tsunami; half of them were randomly assigned to watch it *before* (treatment group) while the remaining to watch it *after* (control group) playing the trust game. In a post-experimental survey information on which direction subjects' mood was altered were collected by asking whether the video mostly reminded them about solidarity (positive affect), looting or the calamity experience (negative or neutral affect).

Even controlling for direct tsunami effects in terms of damages and aid received (which turns out to be not significant), the experimental results document a differential impact of the emotional responses generated by the video on the propensity to play as "less demanding" trustors and "reliable" trustees according to own personal cheating notions. In particular, the probability for trustors to define cheating as a non-negative return on investment (i.e. receiving no more than what invested in order not to feel cheated) and for trustee to satisfy trustor's expected cheating notion (i.e. returning at least what would make him/her not feel cheated) is higher for those who recall solidarity than for those recalling looting and/or the calamity. Artificially-induced positive emotions increase the fraction of trustors less demanding in terms of cheating and of non-intentionally cheating trustees respectively by about 30 and 20 percent more than do artificially induced negative or neutral emotions.

Despite of the possible limited external validity of the results due to sample composition (i.e. micro-finance borrowers from three Sri Lankan villages), the specific design of this study leads to findings which are very likely to be interpreted in a causal way for at least two main reasons. First, as confirmed in the descriptive and econometric analysis, the before/after video assignment allows to control for potential endogenous unobserved traits influencing emotional reactions and game behavior. Second, the process of bank screening and/or self-selection of eligible borrowers is likely to ensure that the current micro-finance borrowers share most of the observable and plausibly unobservable characteristics (i.e., for instance, entrepreneurial attitudes, trustworthiness, etc.) which maybe correlated with emotions and behavior in the trust game.

If the trust game replicates most of real-world investment decisions, the main findings may have important economic implications. First, they suggest a new channel through which - in a post-disaster environment with asymmetric information and incomplete contracts - positive affect might stimulate engagement in market interactions which would not take place otherwise because of the implicit risk of being cheated. Second, independently from whether incidental emotions are the basis for future decisions (Andrade and Ariely, 2009) or their effect on behavior decays soon, results from this paper are still relevant if affective shocks are ubiquitous (Ifcher and Zarghamee, 2011). This is very likely to happen in contexts - as the one in this study

- affected by a natural calamity in which people are frequently reminded about it in daily activities and consequently more likely to think other neighbors exposed to the same emotional stimuli will behave as they would do – they may perceive a sort of "falsus consensus" with respect to their own emotions and choices and extrapolate their opponent's behavior from their own (see, among others, Ross et al. 1977, Butler et al., 2010 and Engelmann and Strobel, 2012). Understating in what direction positive, negative or neutral affect alter socio-economic transactions may provide national or international developing agencies working in post-disaster reconstruction with further insights on how to improve upon the efficacy of their activities.

If it provides further causal evidence about the role of emotions on trusting and trustworthy behavior, this study alone is not certainly sufficient to suggest policy-makers, NGOs or public/private companies how to exploit the nexus between moods and behavior to harness social capital. Additional research on the topic is needed in at least two directions, i.e. i) the impact of emotion manipulation in multi-round games where subjects can update their beliefs and ii) the time-length necessary for incidental emotions to alter subjects' behavior permanently or at least for a longer time horizon.

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Table 1: **Variable Legend**

Variable	Description
Send	*amount sent by the Trustor (TR)*
TR_cheat	*cheating threshold: amount of money S needs to receive back from R in order not to feel cheated*
TE_cheat	*expected cheating threshold: amount of money R needs to send back in order not to make S feel cheated*
Trustor	*= 1 if the player is a TR; = 0 if the player is a TE.*
Return	*TE amount returned in response to each TR possible choice (strategy method)*
Mean_Return	*amount of money returned by TE (Return) averaged over all the 11 possible TR choices (strategy method)*
$Pr(TR\_cheat \leq Send)$	*proportion of TRs who define a cheating notion corresponding to a non-negative return on investment rule, i.e. receiving no more than what invested in order not to feel cheated*
$Pr(Return \geq TE\_cheat)$	*proportion of TEs returning strictly more than what they expect the TR needs to receive in order not to feel cheated*
$Pr(Return \geq TE\_cheat)$	*proportion of TEs returning equally to/more than what they expect the TR needs to receive in order not to feel cheated*
$Avg\_Pr(Return \geq TE\_cheat)$	*proportion of TEs returning equally to/more than what they expect the TR needs to receive in order not to feel cheated (averaged over the 11 retun choices)*
Age	*respondent's age*
Male	*=1 if the respondent is male*
Married	*=1 if the respondent is married*
Widowed	*=1 if the respondent is widowed*
Separated	*=1 if the respondent is separated*
Single	*=1 if the respondent is single*
N_house_members	*n. of house components*
Years_schooling	*respondent's years of schooling*
Food_exp_std	*monthly respondent's household food expenditure (in LKR, scaled by 1000).*
Agriculture	*= 1 if the respondent works in the agricultural sector*
Manufacturing	*= 1 if the respondent works in the manufacturing sector*
Fishery	*= 1 if the respondent works in the fishery sector*
Trading	*= 1 if the respondent works in the trading sector*
Riskloving	*amount invested in the risky option of the risky investment game.*
Riskloving_ratio	*amount invested in the risky option of the risky investment game / initial endowment (300 LKR).*
Switch	*potential lottery number at which the participant switches from option A (receive 10.000 LKR after 2 months) to option B (receive 10.000 + x LKR after 8 months). It is a real number between 1 and 9; it is =1 if the participant chooses B from the first potential lottery and never switches to A (maximum degree of patience); it is =9 if the participant chooses A from the first potential lottery and never switches to B (maximum degree of impatience). See relevant game sheets in the Appendix A for the options in each single lottery.*
Impatient	*= 1 if switch ¿ 5.9, i.e the respondent is above the mean level of impatience— (s)he has switched to option B (highest payoff with latest payment) from or after the seventh lottery-choice. See relevant game sheets in the Appendix A for the option list for each lottery.*
Galle	*= 1 If the respondent lives in Galle district.*
Matara	*= 1 If the respondent lives in Matara district.*
Hambantota	*= 1 If the respondent lives in Hambantota district.*
Most_can_be_trusted	*"Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?". 1 = Have to be careful ; 2 = Most people can be trusted.*
Cant_rely	*respondent's 1-5 Likert scale agreement on the statement: "Nowadays, you can't rely on anybody"*
People_take_advantage	*respondent's 1-5 Likert scale agreement on the statement: "If you are not careful, other people will take advantage of you"*
Trustindex	*(most_can_be_trusted+cant_rely+ people_take_advantage)/3*
Loancycle	*total n. of loan repaid (borrower's seniority)*
Personal_Injury	*=1 if the respondent reports personal injuries caused by tsunami*
Family_Injury	*=1 if the respondent reports injuries to relatives caused by tsunami*
Damage_house	*=1 if the respondent reports damages to the house caused by tsunami*
Damage_econ_activity	*=1 if the respondent reports damages to the economic activity caused by tsunami*
Damage_assets	*=1 if the respondent reports damages to assets caused by tsunami*
Damage_tools	*=1 if the respondent reports damages to working tools caused by tsunami*
Damage_raw_materials	*=1 if the respondent reports damages to raw materials caused by tsunami*
Damaged	*=1 if the respondent reports at least one type of damage.*
Money_aid	*=1 if the respondent received financial aid (non microfinance) after the tsunami*
Credit_aid	*=1 if the respondent received financial support (microfinance) after the tsunami*
Food_aid	*=1 if the respondent received assistance in terms of food after the tsunami*
Medicines_aid	*=1 if the respondent received assistance in terms of medicines after the tsunami*
Rawmaterials_aid	*=1 if the respondent received assistance in terms of raw materials for repairing/rebuilding house after the tsunami*
Tools_aid	*=1 if the respondent received assistance in terms of working tools after the tsunami*
Consumption_aid	*=1 if the respondent received consumption aid after the tsunami*
Other_aid	*=1 if the respondent received other kind of aid after the tsunami*
Aid_index	*= sum of *_aid dummies /8*
Aid	*= 1 if Helpindex ¿ 0*
Problems_meal	*= 1 if the respondent has problems in buying or providing daily meals*
Video	*= 1 if the respondent has watched the video BEFORE the experimental session; = 0 if (s)he has watchad it AFTER the experimental session.*
Recall_solidarity	*= 1 if the respondent through the video mostly recalled solidarity*
Recall_calamity	*= 1 if the respondent through the video mostly recalled the calamity*
Recall_looting	*= 1 if the respondent through the video mostly recalled looting*
Sociability	*standardized index of "sociability" = sum across all the groups the respondent belongs to (i.e. sporting, neighbour, religious, community, cultural, NGOs, political, other) divided by 8 (tot. number of groups)*

Table 2: **Summary Statistics**

Variable	**Obs**	**Mean**	**Std. Dev**	**Min**	**Max**
Panel A - Sociodemographic characteristics					
Age	386	46.93	12.189	12	71
Single	386	0.04	0.205	0	1
Widowed	386	0.10	0.298	0	1
Separated	386	0.02	0.134	0	1
Married	386	0.84	0.368	0	1
Male	386	0.07	0.255	0	1
Galle	386	0.21	0.410	0	1
Hambantota	386	0.28	0.452	0	1
Matara	386	0.50	0.501	0	1
Years_schooling	379	10.53	2.499	0	16
Food_exp_std	385	8.74	6.907	0.4	120
N_house_members	386	4.52	1.413	1	10
Trading	386	0.37	0.484	0	1
Fishery	386	0.04	0.187	0	1
Manufacturing	386	0.32	0.466	0	1
Agriculture	386	0.22	0.415	0	1
Trustindex	384	1.21	0.339	0.667	2.667
Loancycle	386	2.05	3.203	0	28
Damaged	386	0.54	0.499	0	1
Aid	376	0.34	0.474	0	1
Problems_meal	386	0.29	0.454	0	1
Sociability	378	0.34	0.154	0	0.875
Panel B - Treatment and Emotional Responses					
Video	386	0.51	0.501	0	1
Recall_solidarity	386	0.46	0.499	0	1
Recall_calamity	386	0.29	0.453	0	1
Recall_looting	386	0.25	0.436	0	1
Panel C - Behavior in the Game					
Riskloving_ratio	386	0.59	0.287	0	1
Switch	386	5.89	2.987	1	9
Impatient	386	0.69	0.461	0	1
Trustor	386	0.50	0.501	0	1
Send	193	112.07	55.093	0	300
Mean_Return	193	182.74	75.314	14.545	568.182
TR_cheat	193	153.68	72.172	30	490
TE_cheat	192	173.26	92.869	6	900
$Pr(TR\_cheat \leq Send)$	193	0.40	0.492	0	1
$Avg\_Pr(Return \geq TE\_cheat)$	190	0.50	0.242	0	1

Table 3: **Balancing properties by treatment and emotions (full sample)**

	Panel A: Balancing prop. by video					Panel B: Balancing prop. by emotions				
Variable	*Video*	*Obs*	*Mean*	*Std dev*	*Non-par tests (z, p)*	*Recall solidarity*	*Obs*	*Mean*	*Std dev*	*Non-par test (z, p)*
Age	after	190	48.14	11.580	1.759	no	210	47.34	12.013	0.634
	before	196	45.76	12.671	0.079	yes	176	46.44	12.412	0.526
Male	after	190	0.08	0.270	0.682	no	210	0.08	0.266	0.525
	before	196	0.06	0.240	0.495	yes	176	0.06	0.243	0.600
Married	after	190	0.83	0.380	-0.687	no	210	0.86	0.351	1.037
	before	196	0.85	0.356	0.492	yes	176	0.82	0.387	0.300
Separated	after	190	0.02	0.125	-0.340	no	210	0.01	0.097	-1.383
	before	196	0.02	0.142	0.734	yes	176	0.03	0.167	0.167
Widowed	after	190	0.11	0.308	0.442	no	210	0.09	0.288	-0.573
	before	196	0.09	0.290	0.658	yes	176	0.11	0.311	0.566
Single	after	190	0.05	0.224	0.809	no	210	0.04	0.203	-0.124
	before	196	0.04	0.186	0.419	yes	176	0.05	0.209	0.902
N_house_members	after	190	4.58	1.338	1.218	no	210	4.60	1.367	0.996
	before	196	4.46	1.483	0.223	yes	176	4.43	1.464	0.319
Years_schooling	after	187	10.52	2.415	-0.190	no	206	10.11	2.577	-4.089
	before	192	10.53	2.585	0.849	yes	173	11.02	2.313	0.000
Food_exp_std	after	190	8.59	3.825	0.898	no	209	9.13	8.697	0.729
	before	195	8.88	8.951	0.369	yes	176	8.27	3.792	0.466
Agriculture	after	190	0.19	0.397	-1.187	no	210	0.22	0.415	-0.060
	before	196	0.24	0.431	0.235	yes	176	0.22	0.417	0.952
Manufacturing	after	190	0.34	0.474	0.863	no	210	0.35	0.477	1.455
	before	196	0.30	0.458	0.388	yes	176	0.28	0.449	0.146
Fishery	after	190	0.04	0.201	0.603	no	210	0.05	0.213	1.301
	before	196	0.03	0.173	0.546	yes	176	0.02	0.149	0.193
Trading	after	190	0.41	0.492	1.287	no	210	0.37	0.484	-0.072
	before	196	0.34	0.476	0.198	yes	176	0.38	0.486	0.942
Galle	after	190	0.17	0.375	-2.079	no	210	0.20	0.401	-0.652
	before	196	0.26	0.437	0.038	yes	176	0.23	0.420	0.515
Matara	after	190	0.56	0.498	2.137	no	210	0.50	0.501	-0.315
	before	196	0.45	0.499	0.033	yes	176	0.51	0.501	0.753
Hambantota	after	190	0.27	0.447	-0.483	no	210	0.30	0.461	0.940
	before	196	0.30	0.458	0.629	yes	176	0.26	0.441	0.347
Switch	after	190	6.13	2.910	1.642	no	210	6.02	2.796	-0.217
	before	196	5.66	3.050	0.101	yes	176	5.74	3.202	0.828
Impatient	after	190	0.66	0.476	1.343	no	210	0.66	0.476	1.594
	before	196	0.60	0.491	0.179	yes	176	0.60	0.492	0.111
Riskloving	after	190	174.16	87.554	-0.946	no	210	178.57	75.037	-0.295
	before	196	181.99	84.639	0.344	yes	176	177.61	97.828	0.768
Trustindex	after	189	1.20	0.365	-1.205	no	209	1.21	0.360	-0.844
	before	195	1.21	0.313	0.228	yes	175	1.21	0.312	0.398
Recall_solidarity	after	190	0.45	0.499	-0.333	no	210			
	before	196	0.46	0.500	0.739	yes	176			
Damaged	after	190	0.55	0.499	0.534	no	210	0.55	0.498	0.581
	before	196	0.53	0.501	0.594	yes	176	0.52	0.501	0.561
Aid	after	184	0.33	0.472	-0.250	no	204	0.34	0.474	0.021
	before	192	0.34	0.476	0.802	yes	172	0.34	0.474	0.983
Sociability	after	186	0.34	0.145	1.208	no	202	0.34	0.164	0.062
	before	192	0.33	0.162	0.227	yes	176	0.34	0.142	0.950
Problems_meal	after	190	0.28	0.450	-0.477	no	210	0.24	0.427	-2.459
	before	196	0.30	0.460	0.633	yes	176	0.35	0.479	0.014

Table 4: **Balancing properties by emotions (treated vs. non-treated)**

		Panel A - Video Before				Panel B - Video After			
Variable	*Recall solidarity*	*Obs*	*Mean*	*Std dev*	*Non-par test (z, p)*	*Obs*	*Mean*	*Std dev*	*Non-par test (z, p)*
Age	no	105	46.05	12.652	0.369	104	48.56	11.272	0.552
	yes	91	45.43	12.753	0.712	83	47.46	12.153	0.581
Male	no	105	0.06	0.233	-0.255	104	0.10	0.296	0.896
	yes	91	0.07	0.250	0.798	83	0.06	0.239	0.370
Married	no	105	0.84	0.370	-0.589	104	0.88	0.332	2.061
	yes	91	0.87	0.340	0.556	83	0.76	0.430	0.039
Separated	no	105	0.01	0.098	-1.155	104	0.01	0.098	-0.781
	yes	91	0.03	0.180	0.248	83	0.02	0.154	0.435
Widowed	no	105	0.10	0.308	0.671	104	0.08	0.268	-1.483
	yes	91	0.08	0.268	0.502	83	0.14	0.354	0.138
Single	no	105	0.05	0.214	0.962	104	0.04	0.193	-1.019
	yes	91	0.02	0.147	0.336	83	0.07	0.261	0.308
N_house_members	no	105	4.70	1.481	2.073	104	4.48	1.238	-0.724
	yes	91	4.19	1.445	0.038	83	4.67	1.458	0.469
Years_schooling	no	104	9.90	2.594	-4.449	101	10.31	2.568	-1.455
	yes	88	11.26	2.385	0.000	83	10.84	2.206	0.146
Food_exp_std	no	104	9.39	11.649	0.173	104	8.87	4.110	0.885
	yes	91	8.30	4.095	0.863	83	8.26	3.501	0.376
Agriculture	no	105	0.24	0.428	-0.237	104	0.20	0.403	0.156
	yes	91	0.25	0.437	0.812	83	0.19	0.397	0.876
Manufacturing	no	105	0.32	0.470	0.917	104	0.38	0.486	1.231
	yes	91	0.26	0.443	0.359	83	0.29	0.456	0.218
Fishery	no	105	0.04	0.192	0.652	104	0.05	0.215	0.856
	yes	91	0.02	0.147	0.515	83	0.02	0.154	0.392
Trading	no	105	0.37	0.486	0.936	104	0.38	0.486	-0.812
	yes	91	0.31	0.464	0.349	83	0.43	0.499	0.417
Galle	no	105	0.26	0.439	0.070	104	0.14	0.353	-1.090
	yes	91	0.25	0.437	0.944	83	0.20	0.406	0.276
Matara	no	105	0.44	0.499	-0.328	104	0.55	0.500	-0.248
	yes	91	0.46	0.501	0.743	83	0.57	0.499	0.804
Hambantota	no	105	0.30	0.463	0.291	104	0.31	0.464	1.199
	yes	91	0.29	0.454	0.771	83	0.23	0.423	0.231
Switch	no	105	5.60	2.884	-1.095	104	6.41	2.653	0.715
	yes	91	5.74	3.245	0.273	83	5.71	3.206	0.475
Impatient	no	105	0.61	0.490	0.108	104	0.70	0.460	2.267
	yes	91	0.59	0.494	0.914	83	0.59	0.495	0.023
Riskloving	no	105	180.57	74.302	-0.600	104	175.96	76.177	0.167
	yes	91	183.63	95.586	0.549	83	170.60	100.150	0.867
Trustindex	no	104	1.20	0.340	-1.637	104	1.22	0.382	0.443
	yes	91	1.23	0.280	0.102	82	1.19	0.348	0.658
Damaged	no	105	0.53	0.501	0.235	104	0.57	0.498	0.507
	yes	91	0.52	0.502	0.814	83	0.53	0.502	0.612
Aid	no	102	0.36	0.483	0.588	102	0.31	0.466	-0.570
	yes	90	0.32	0.470	0.556	82	0.35	0.481	0.568
Sociability	no	101	0.34	0.176	0.712	100	0.34	0.153	-0.789
	yes	91	0.32	0.146	0.476	83	0.36	0.137	0.430
Problems_meal	no	190	0.28	0.450	-1.746	190	0.28	0.450	-1.716
	yes	196	0.30	0.460	0.081	196	0.30	0.460	0.086

Table 5: **Behavior in the TG by treatment and emotions**

	Panel A - Whole sample, by Video					Panel B - Whole sample, by Emotions				
	Video	*Obs*	*Mean*	*Std dev*	*Non-par test (z, p)*	*Recall Solidarity*	*Obs*	*Mean*	*Std dev*	*Non-par test (z, p)*
Send	after	97	109.79	50.847	-0.510	no	110	110.73	54.482	0.057
	before	96	114.38	59.255	0.610	yes	83	113.86	56.175	0.955
TR_cheat	after	97	154.85	73.684	0.556	no	110	160.36	77.281	1.092
	before	96	152.50	70.978	0.578	yes	83	144.82	64.171	0.275
Mean_Return	after	93	179.54	65.295	-0.619	no	100	175.34	80.130	-1.924
	before	100	185.72	83.784	0.536	yes	93	190.70	69.315	0.054
TE_cheat	after	93	171.35	105.014	-0.715	no	99	168.49	71.106	0.441
	before	99	175.05	80.310	0.475	yes	93	178.33	111.666	0.660
$Pr(TR\_cheat \leq Send)$	after	97	0.41	0.495	0.233	no	110	0.38	0.488	-0.726
	before	96	0.40	0.492	0.815	yes	83	0.43	0.499	0.468
$Avg\_Pr(Return \geq TE\_cheat)$	after	92	0.52	0.248	1.388	no	98	0.48	0.245	-1.744
	before	98	0.48	0.235	0.165	yes	92	0.53	0.236	0.081
	Panel C - Video Before					Panel D - Video After				
	Recall solidarity	*Obs*	*Mean*	*Std dev*	*Non-par test (z, p)*	*Recall solidarity*	*Obs*	*Mean*	*Std dev*	*Non-par test (z, p)*
Send	no	58	111.21	58.131	-0.388	no	52	110.19	50.662	0.488
	yes	38	119.21	61.397	0.698	yes	45	109.33	51.628	0.625
TR_cheat	no	58	162.59	78.975	1.201	no	52	157.88	76.038	0.446
	yes	38	137.11	54.072	0.230	yes	45	151.33	71.561	0.655
Mean_Return	no	47	178.01	99.307	-1.495	no	53	172.97	59.060	-1.009
	yes	53	192.57	67.373	0.135	yes	40	188.23	72.600	0.313
TE_cheat	no	46	184.57	80.738	1.580	no	53	154.55	58.829	-0.834
	yes	53	166.79	79.778	0.114	yes	40	193.63	143.205	0.404
$Pr(TR\_cheat \leq Send)$	no	58	0.31	0.467	-2.105	no	52	0.46	0.503	1.052
	yes	38	0.53	0.506	0.035	yes	45	0.36	0.484	0.293
$Avg\_Pr(Return \geq TE\_cheat)$	no	46	0.42	0.240	-2.301	no	52	0.52	0.241	-0.385
	yes	52	0.54	0.218	0.021	yes	40	0.52	0.261	0.700

Table 6: **Probability of playing as a "less demanding" trustor**

$Pr(TR\_cheat \leq Send)$	(1) Full Sample	(2) Full Sample	(3) Full Sample	(4) Full Sample	(5) Video Before	(6) Video After	(7) Full Sample	(8) Video Before	(9) Video After
Video	-0.0165	-0.153	-0.190**	-0.238**			-0.266**		
	(0.0708)	(0.0931)	(0.0955)	(0.0974)			(0.104)		
Recall_solidarity		-0.105	-0.0909	-0.135	0.267**	-0.126	-0.153	0.356**	-0.196*
		(0.0985)	(0.101)	(0.103)	(0.106)	(0.106)	(0.107)	(0.145)	(0.114)
Video*Recall_solidarity		0.324**	0.328**	0.395***			0.365**		
		(0.136)	(0.138)	(0.134)			(0.146)		
Damaged			0.0254	0.0440	0.161	-0.0752	0.0637	0.257*	-0.0574
			(0.0770)	(0.0783)	(0.109)	(0.113)	(0.0877)	(0.138)	(0.141)
Aid			0.0833	0.0790	-0.0284	0.218	0.129	-0.100	0.329*
			(0.0864)	(0.0893)	(0.116)	(0.135)	(0.104)	(0.169)	(0.178)
Riskloving				-0.122	-0.0538	-0.201	-0.174	-0.175	-0.186
				(0.140)	(0.189)	(0.204)	(0.144)	(0.230)	(0.230)
Impatient				-0.216***	-0.307***	-0.102	-0.194**	-0.396***	-0.220
				(0.0792)	(0.106)	(0.120)	(0.0871)	(0.147)	(0.151)
Male							0.320**	0.0891	0.488***
							(0.146)	(0.236)	(0.168)
Age							-0.00726**	-0.00995*	-0.00887*
							(0.00359)	(0.00535)	(0.00525)
Single							0.0697		-0.0687
							(0.196)		(0.260)
Widowed							0.0786	0.597***	-0.227
							(0.160)	(0.123)	(0.163)
Separated							0.00936		
							(0.407)		
N_house_members							-0.0177	0.0570	-0.0943**
							(0.0307)	(0.0547)	(0.0447)
Food_exp_std							-0.00730	-0.0329	-0.00354
							(0.0112)	(0.0225)	(0.0171)
Problems_meal							-0.0567	-0.102	-0.0361
							(0.0880)	(0.146)	(0.142)
Galle							0.0812	0.0198	0.235
							(0.107)	(0.146)	(0.164)
Hambantota							0.0990	0.118	0.112
							(0.111)	(0.202)	(0.161)
Years_schooling							0.0167	0.0165	0.00486
							(0.0183)	(0.0379)	(0.0254)
Trading							0.0339	0.169	-0.0484
							(0.0892)	(0.129)	(0.139)
Agriculture							0.0612	-0.208	0.221
							(0.122)	(0.186)	(0.162)
Manufacturing							-0.0563	-0.0362	0.0128
							(0.0887)	(0.131)	(0.153)
Loancycle							-0.00917	-0.0466*	-0.00985
							(0.0105)	(0.0245)	(0.0138)
Trustindex							0.0992	-0.298	0.310
							(0.125)	(0.203)	(0.194)
Sociability							-0.227	-0.177	0.0554
							(0.281)	(0.385)	(0.461)
Observations	193	193	187	187	94	93	181	89	89

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The reported coefficients are marginal effects of Probit estimation. Omitted benchmarks: Fishing, Married, Matara, Recall_calamity/Recall_looting

Table 7: **Probability of playing as a "reliable" trustee**

$Pr(Return \geq TE\_cheat)$	(1) Full Sample	(2) Full Sample	(3) Full Sample	(4) Full Sample	(5) Video Before	(6) Video After	(7) TR_send≤210	(8) TR_send>210	(9) Full Sample	(10) Video Before	(11) Video After	(12) TR_send≤ 210	(13) TR_send>210
TR_Send	0.00434***	0.00441***	0.00437***	0.00445***	0.00446***	0.00454***	0.00465***	0.00144***	0.00457***	0.00485***	0.00482***	0.00482***	0.00132***
	(0.000234)	(0.000234)	(0.000236)	(0.000244)	(0.000348)	(0.000299)	(0.000305)	(0.000344)	(0.000255)	(0.000394)	(0.000310)	(0.000321)	(0.000339)
Video	-0.0590	-0.164**	-0.174**	-0.180**			-0.139**	-0.129**	-0.140*			-0.112	-0.0802
	(0.0534)	(0.0727)	(0.0761)	(0.0748)			(0.0692)	(0.0582)	(0.0794)			(0.0755)	(0.0492)
Recall_solidarity		-0.0214	-0.0247	-0.0416	0.186***	-0.0592	-0.00368	-0.0833	-0.0481	0.142*	-0.0492	-0.00775	-0.0733
		(0.0815)	(0.0825)	(0.0811)	(0.0704)	(0.0822)	(0.0701)	(0.0662)	(0.0882)	(0.0801)	(0.101)	(0.0807)	(0.0557)
Video*Recall_solidarity		0.201**	0.210**	0.210**			0.146	0.153***	0.181			0.122	0.109**
		(0.102)	(0.103)	(0.104)			(0.102)	(0.0529)	(0.111)			(0.111)	(0.0465)
Damaged			-0.00813	-0.00425	0.0213	0.00737	-0.0114	0.0130	0.0216	0.103	0.0700	0.0278	-0.00587
			(0.0580)	(0.0573)	(0.0804)	(0.0834)	(0.0523)	(0.0431)	(0.0598)	(0.0879)	(0.0981)	(0.0549)	(0.0360)
Aid			0.0173	0.00782	-0.0287	-0.00280	0.0172	-0.0143	0.0255	-0.0158	-0.0246	0.0230	0.0119
			(0.0593)	(0.0590)	(0.0823)	(0.0822)	(0.0544)	(0.0437)	(0.0603)	(0.0896)	(0.109)	(0.0567)	(0.0366)
Riskloving				0.0572	0.0866	0.0256	0.0936	-0.0360	0.0338	0.100	0.0981	0.0851	-0.0686
				(0.0973)	(0.139)	(0.134)	(0.0823)	(0.0791)	(0.106)	(0.153)	(0.147)	(0.0892)	(0.0720)
Impatient				-0.151**	-0.0244	-0.291***	-0.148***	-0.0568	-0.158**	-0.0218	-0.285***	-0.148**	-0.0689**
				(0.0596)	(0.0844)	(0.0702)	(0.0563)	(0.0409)	(0.0641)	(0.0935)	(0.0891)	(0.0623)	(0.0328)
Male									0.0446	0.0808	-0.0616	-0.0184	0.0855***
									(0.0995)	(0.160)	(0.131)	(0.0969)	(0.0309)
Age									-0.000979	0.000515	-0.00352	-0.00117	0.000258
									(0.00264)	(0.00330)	(0.00439)	(0.00244)	(0.00163)
Single									0.0285	-0.208**	0.0154	0.0430	-0.0112
									(0.105)	(0.0870)	(0.169)	(0.105)	(0.0684)
Widowed									0.0990	0.144	-0.0162	0.0669	0.0627*
									(0.100)	(0.149)	(0.184)	(0.0938)	(0.0372)
Separated									0.157	0.0678	-0.0177	0.109	0.0963***
									(0.119)	(0.264)	(0.180)	(0.135)	(0.0227)
N_house_members									0.0221	0.0419**	-0.0224	0.00412	0.0359**
									(0.0189)	(0.0203)	(0.0439)	(0.0178)	(0.0145)
Food_exp_std									-0.00678*	-0.00396	-0.0215	-0.00399	-0.00512**
									(0.00364)	(0.00428)	(0.0146)	(0.00315)	(0.00227)
Problems_meal									0.00173	0.0624	-0.197*	0.0254	-0.0412
									(0.0636)	(0.0779)	(0.114)	(0.0584)	(0.0426)
Galle									-0.0510	-0.0276	-0.0645	-0.0316	-0.0415
									(0.0897)	(0.122)	(0.140)	(0.0783)	(0.0650)
Hambantota									-0.0150	0.179*	-0.276**	-0.0223	0.0164
									(0.0783)	(0.0990)	(0.122)	(0.0693)	(0.0508)
Years_schooling									0.00967	0.0266	-0.0172	0.00315	0.0121
									(0.0136)	(0.0190)	(0.0219)	(0.0118)	(0.00841)
Trading									-0.0756	-0.0395	-0.0605	-0.0756	-0.0280
									(0.0635)	(0.0789)	(0.106)	(0.0526)	(0.0459)
Agriculture									0.0551	0.126	-0.0803	0.0670	-0.0112
									(0.0725)	(0.0852)	(0.120)	(0.0694)	(0.0519)
Manufacturing									0.0868	0.132	0.0264	0.0947	0.0133
									(0.0711)	(0.0921)	(0.0989)	(0.0657)	(0.0455)
Loancycle									-0.0167	-0.0343***	0.00680	-0.0135	-0.00887
									(0.0103)	(0.0120)	(0.0221)	(0.00906)	(0.00569)
Trustindex									0.173**	0.200**	0.107	0.117*	0.195***
									(0.0689)	(0.0899)	(0.120)	(0.0658)	(0.0590)
Sociability									-0.0565	-0.00616	0.0153	0.00713	-0.102
									(0.210)	(0.283)	(0.306)	(0.189)	(0.132)
Observations	2,123	2,123	2,079	2,079	1,078	1,001	1,512	567	1,980	1,023	957	1,440	540

Notes: Robust standard errors clustered at individual level in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The reported coefficients are marginal effects of Probit estimation. Omitted benchmarks: Fishing, Married, Matara, Recall_calamity/Recall_looting. TR_Send reports all the TR's possible choice (i.e. 0, ..., 300); the dependent variable is calculated for each TE's return choice following the strategy method approach.

Figure 1. **K-density of TR's cheating notions over amount invested**

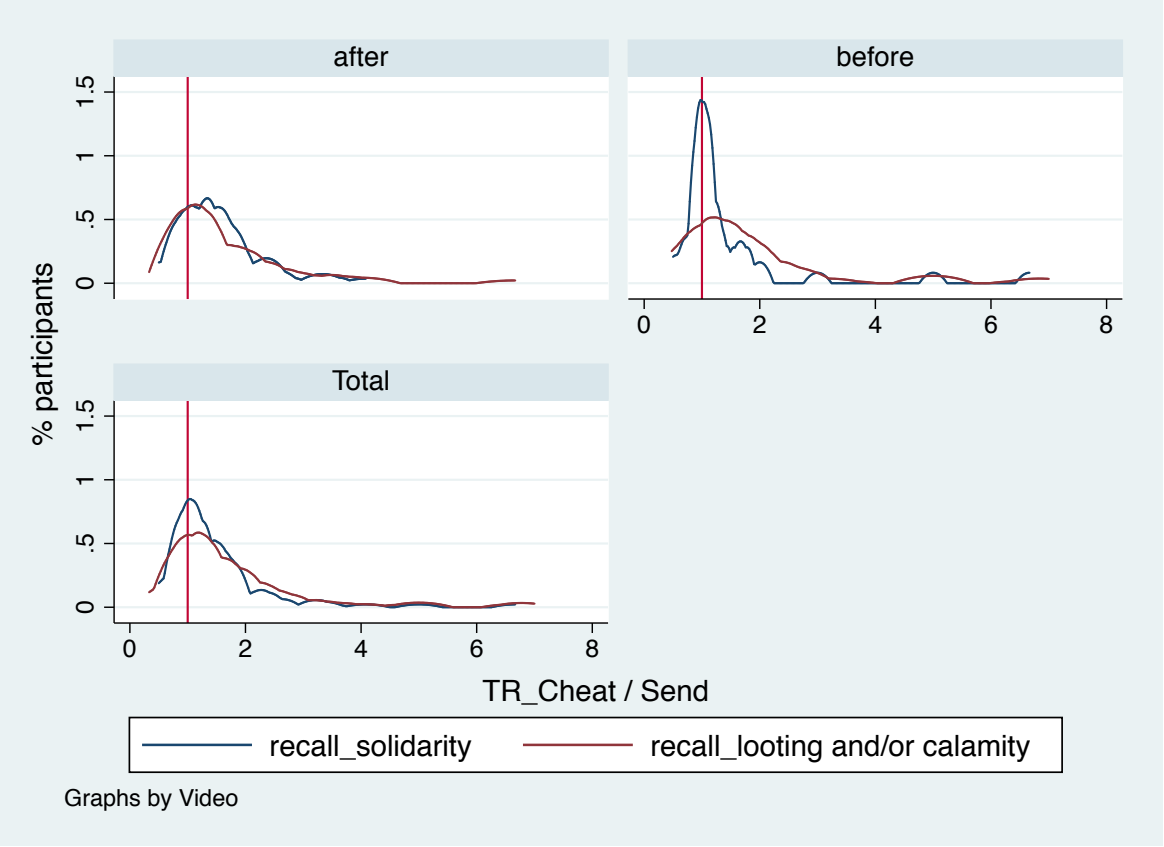


Figure 2. **K-density of TE's returned amounts over TR's expected cheating notions**

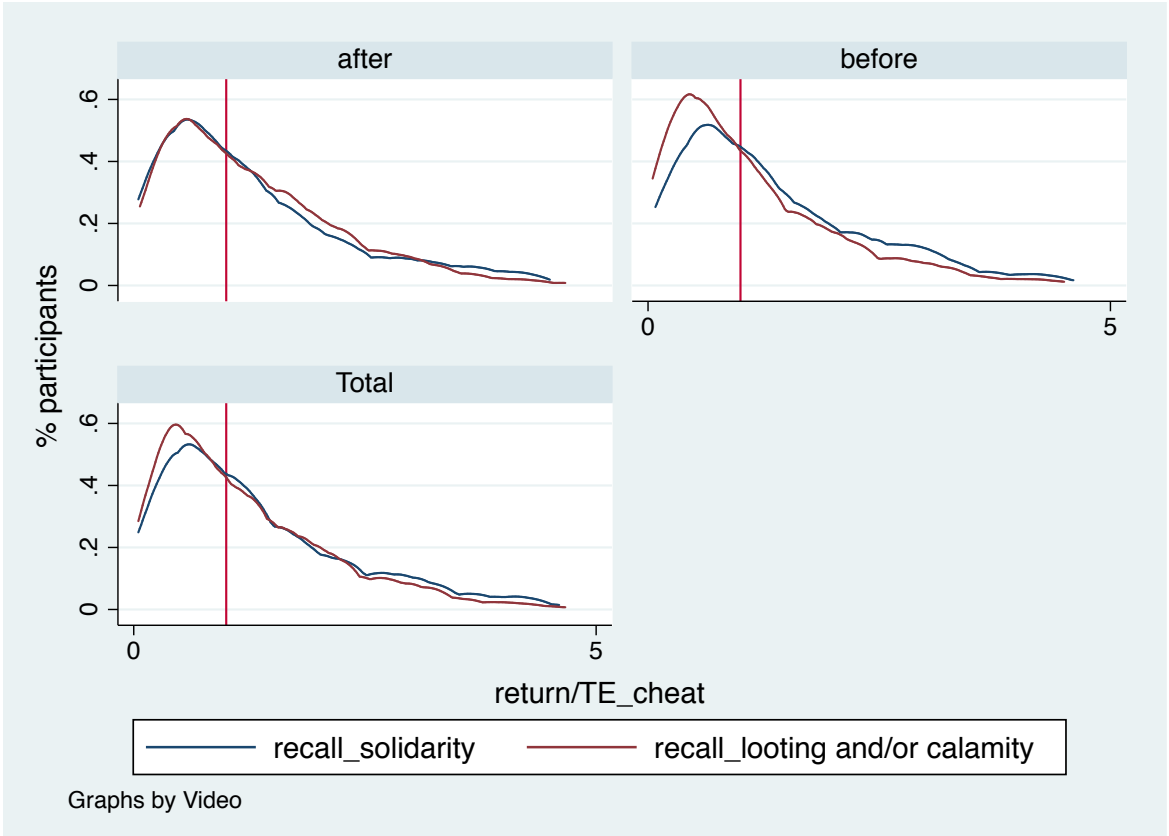
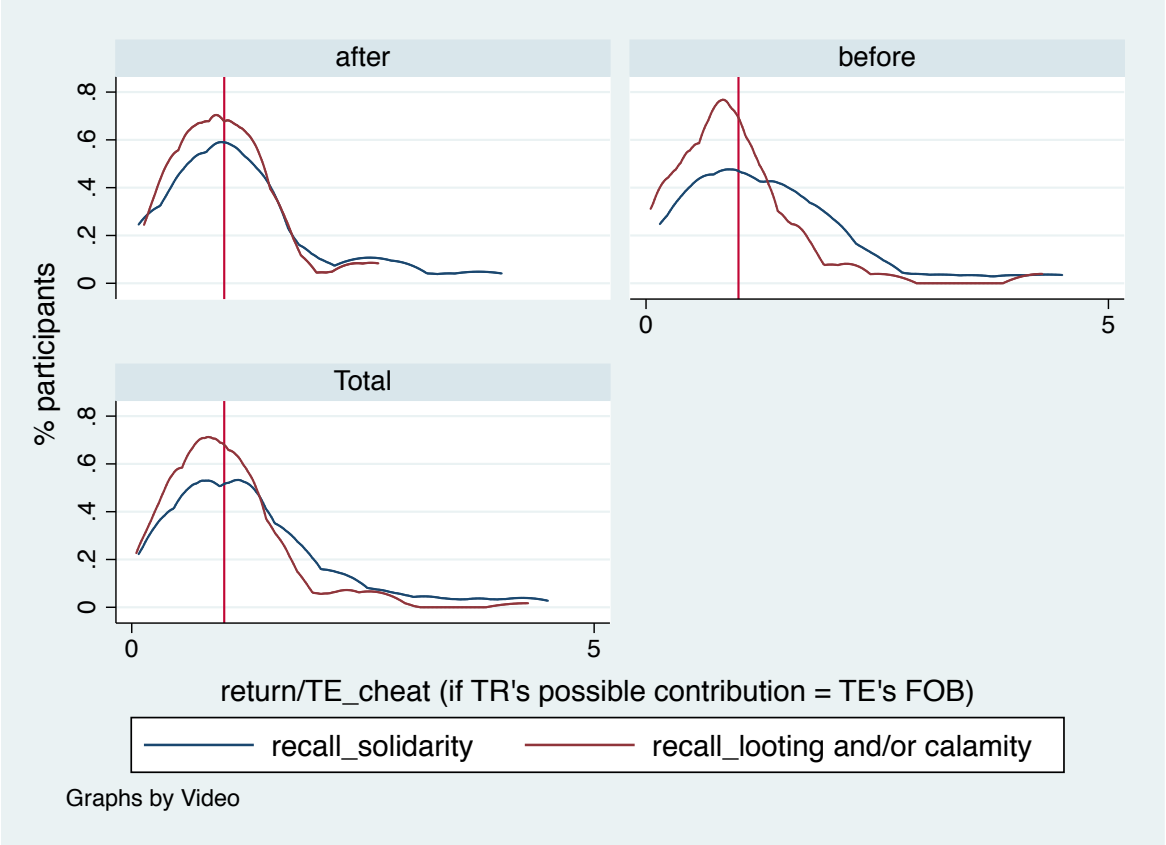


Figure 3. **K-density of TE's returned amounts over TR's expected cheating notions**
(if TE's FOB = TR's possible contribution)



APPENDIX A – GAME INSTRUCTIONS

A.1 INTRODUCTION

Hi, thanks for being here. You have already won 200 LKR just for participating.
Today we are going to play some games in which you can earn additional money depending on how you play. So it is in your interest to put as much effort as possible and behave truthfully! Please, do not talk with each other unless we tell you explicitly and take the games seriously.
You will play some games that replicate daily-life situations. During the session, you will be shown also a video.
The games may allow you to make positive payoffs. In addition to your show up fee of 200 LKR, you can win up to 900 or 1200 LKR depending on the structure of the game. You will be paid just for one randomly selected game, so it is in your interest to put the same effort in each game since you don't know which game is selected for payment.
We have already randomly selected the game for payment for this session. It is written in this envelope. So your actions in the game won't influence the choice of the game selected for payment.
You will be given the specific instruction for each game by an experimenter. In case of doubts, please do not hesitate to ask him/her questions. Make sure you understand the games perfectly and ask – if necessary – for more examples.
The whole session will end with a survey.
To sum up, your total earning will be equal to: show-up fee + what you earn in one of the games (randomly chosen).

VIDEO PROJECTION

BEFORE OR AFTER THE GAMES

(see Appendix C)

A.2 INSTRUCTIONS - GAME "TG"

Today you are given the chance to play and earn real money. In this game you will be asked some questions and depending on how your and the other player's answers you may earn up to 1200 LKR (or 1200 LKR depending on the role you play).
This game is based on an exchange of money between two individuals with anonymity, that is each player does not know the identity of the other. You play with someone from your village and you do not know his/her identity nor he/she knows yours.
The game involves two roles, i.e. player one and player two. You are randomly chosen to play just one of these two. The other role is played by another person in this village.
We give to both of you 300 LKR. Player one has to choose how much of this amount to keep for him/herself and how much to send to the other player. He/she can send from 0 to 300 LKR. Then we take the sum he/she decided to send, multiply it by three and give it to the player two.
Player two has to decide how much to return back to the first player for each possible amount the player one can send. The game ends and we match player-one's decision with the corresponding choice of player-two.
Once you have finished this game, if this game is selected for payment your answers will be randomly matched with those of another person in this village who play in the other role and we will pay you accordingly.
Now let's start the game.

******

P1) You are chosen to play as *Player 1*. Both you and player 2 are given 300 LKR as initial endowment. Now you have to decide how much of the initial amount you may want to send to player 2, knowing that we will multiply it by three and player two might send you back some or no money.

1. **How much of your initial endowment of 300 LKR do you give to the other player?**

   ☐ 0, so player 2 will receive 0
   ☐ 30, so player 2 will receive 90
   ☐ 60, so player 2 will receive 180
   ☐ 90, so player 2 will receive 270
   ☐ 120, so player 2 will receive 360
   ☐ 150, so player 2 will receive 450
   ☐ 180, so player 2 will receive 540
   ☐ 210, so player 2 will receive 630
   ☐ 240, so player 2 will receive 720
   ☐ 270, so player 2 will receive 810
   ☐ 300, so player 2 will receive 900

2. **How much money do you think that the second player will give you back?**_____ *(you earn 50 LKR for correct guess)*

3. **How much do you think the player 2 is expecting from you?** *(you earn 50 LKR for correct guess)*

   ☐ *0*
   ☐ *30*
   ☐ *60*
   ☐ *90*
   ☐ *120*
   ☐ *150*
   ☐ *180*
   ☐ *210*
   ☐ *240*
   ☐ *270*
   ☐ *300*

4. **Why did you give the money to the other person?** (just one option)

   ☐ *[1] I trust him*
   ☐ *[2] I hope that he will give me back the same or more than that I gave him*
   ☐ *[3] It makes me feel good that he gains money*
   ☐ *[4] I don't like a different treatment between me and him*

5. **What is the minimum amount of money you would need to receive from the other player in order not to feel cheated?** *If I get less than* _____ *I feel cheated*

P2) You are chosen to play as *Player 2*. Both you and player 2 are given 300 LKR as initial endowment. You have to decide for each possible amount sent by the first player, how much you feel like to return. Keep in mind that whatever the first player send you will be tripled by us.

1. **How much LKP do you give back in each case:**
   - If the other person sends you 0 and you receive 0 you would give back _____
   - If the other person sends you 30 and you receive 90 you would give back _____
   - If the other person sends you 60 and you receive 180 you would give back _____
   - If the other person sends you 90 and you receive 270 you would give back _____
   - If the other person sends you 120 and you receive 360 you would give back _____
   - If the other person sends you 150 and you receive 450 you would give back _____
   - If the other person sends you 180 and you receive 540 you would give back _____
   - If the other person sends you 210 and you receive 630 you would give back _____
   - If the other person sends you 240 and you receive 720 you would give back _____
   - If the other person sends you 270 and you receive 810 you would give back _____
   - If the other person sends you 300 and you receive 900 you would give back _____

2. **How much LKR do you expect the first player has sent to you?** *(you earn 50 LKR for correct guess)*

   ☐ *0*
   ☐ *30*
   ☐ *60*
   ☐ *90*
   ☐ *120*
   ☐ *150*
   ☐ *180*
   ☐ *210*
   ☐ *240*
   ☐ *270*
   ☐ *300*

3. **Why did you give back the money to the other person?** (just one option)

   ☐ *[1] I'm a person one can rely on*
   ☐ *[2] I don't like that he gets much less than me*
   ☐ *[3] It makes me feel good that he gains money*
   ☐ *[4] I don't like a different treatment between me and him*

4. **What is the minimum amount of LKR you think you need to return in order not to make the first player feel cheated?** *if the first player receives from me less than_____he/she would feel cheated.*

*****

A.3 INSTRUCTIONS - GAME "RG"

Today you are given the chance to play and earn real money; depending on your decision in this game you may earn up to 900 LKR. This game is based on an investment decision.

We give to you 300 LKR and ask you to choose between the following alternatives:

- option 1: you keep the 300 LKR with certainty and do not invest any money.
- option 2: you invest from 30 to 300 LKR in an economic activity. You keep with certainty the sum you decided not to invest. Then, with 50% probability you earn from the economic activity an amount of money equal to the invested sum *multiplied by 3*. Otherwise, with 50% probability the economic activity you invested in generates for you no returns.

Once you have chosen one of the two options, we pay you according to the following scheme:

- If you choose option 1, we give to you 300 LKR at the end of this session if this game is selected for payment.
- If you choose option 2, we toss a coin and a) if it's head we triple the amount you decided to invest and give it to you at the end of the session if this game is selected for payment (in addition to the amount you decided to keep); b) if not, we will give you just the money you decided to keep at the end of this session if this game is selected for payment (so no extra returns from the investment).

For example, suppose you choose option 2 and decide to invest 30 LKR and keep 270 LKR. The economic activity triples your investment with 50% chances. So we toss a coin and if it's head will give you 90 LKR as returns from the investment in addition to the 270 LKR you decided to keep (so in total 270+90=360 LKR); otherwise, if it's not head, you lose the 30 LKR you invested and we give to you just the amount you decided to keep, 270 LKR. Is it clear?

Now let's start the game.

We give to you 300 LKR. Do you choose:

- option 1: I keep 300 LKR and do not invest, or
- option 2: I invest _____LKR in an asset which, after tossing a coin, triples my investment if it's head or gives me no money otherwise. *Please specify one of the following amount*s:

☐ *30*
☐ *60*
☐ *90*
☐ *120*
☐ *150*
☐ *180*
☐ *210*
☐ *240*
☐ *270*
☐ *300*

*****

A.4 THE SURVEY

Thanks a lot for your patience. Your answers will be kept anonymous to other people in the village and to the AMF's staff. We will really appreciate if you can answer in a truthful way. (See appendix B)

*****

A.3 INSTRUCTIONS - LOTTERY GAME

Now we give to you the chance to participate into a lottery we are running. If you will be selected among all the people we interview, you can win at least 10,000 LKR.
You have to decide which option you prefer in 8 cases. In each of these 8 cases, you will be asked if you prefer to receive *after two months* the lottery prize of 10,000 LKR or *after eight months* a prize of an increasing amount in each option. So, you have to choose which of the two alternative forms of payment would you prefer if you won the lottery.
For example, the first option will be "*would you prefer to win 10,000 LKR after two months after this interview, or 10,100 after eight months after this interview?*" So you choose one of the two alternatives. This option will be repeated 8 times; in each of these we keep fixed the amount to be received "*after two month*" (10,000 LKR) in case of winning while the amount "*after eight months*" will be gradually increased option-by-option until 14,142 LKR.
All the people interviewed in this research will participate in this lottery. At the end of this research, we will extract from an urn one out of all the names of people we interviewed; that person will be the only winner of this lottery. Then, we extract from another urn a number from 1 to 8 and we will pay the winner according to his/her choice in the option number equal to the one extracted. For example, if the number selected is 5, we will pay the winner the sum of money corresponding to his/her choice in option 5. If the winner chose to receive "10,000 after two months", we will transfer that amount via "Western Union" after two month from his/her interview date; if instead she/he chose to receive "10,368 after eight months", we will be paying 10,368 LKR after eight months from his/her interview date.
Is it clear?
Let´s start.

Please select only one of the two choices for each of the following 8 options.

Option n.		***A***	***B***
1	*If you won the lottery, would you like to receive:*	10,000 after 2 month	10,100 after 8 months
2	*If you won the lottery, would you like to receive:*	10,000 after 2 month	10,198 after 8 months
3	*If you won the lottery, would you like to receive:*	10,000 after 2 month	10,368 after 8 months
4	*If you won the lottery, would you like to receive:*	10,000 after 2 month	10,607 after 8 months
5	*If you won the lottery, would you like to receive:*	10,000 after 2 month	10,840 after 8 months
6	*If you won the lottery, would you like to receive:*	10,000 after 2 month	11,180 after 8 months
7	*If you won the lottery, would you like to receive:*	10,000 after 2 month	12,247 after 8 months
8	*If you won the lottery, would you like to receive:*	10,000 after 2 month	14,142 after 8 months

IMPORTANT: If you will be the winner you will receive the money according to your extracted choice. If you do not receive any notification nor payment after 8 months from the date of this interview, unfortunately you have not been extracted.

APPENDIX B – THE SURVEY

Code number _____

Survey Data

Question		Answer
1	Experimenter name	
2	Date	
3	Time	
4	District	
5	Type of locality (urban/rural)	

Personal Information

6	Identification number	[1] [2] [3]	NIC _____ Passport _____ Other identification number. Specify _____
7	Name		
8	Family name		
9	Full Address / Locality		
10	Sex	[1] [2]	Male Female
11	Birthday (DD/MM/YYYY)		
12	Years of formal education		
13	Civil status	[1] [2] [3] [4] [5] [6]	Single Married Widow Divorced Separated Cohabiting
14	Which is your relationship to the head of the household?	[1] [2] [3] [4] [5] [6] [7] [8]	Head of Household Wife/Husband Son/Daughter Parent Other Relative Domestic Servant Boarder Other. Specify
15	Number of people living in the house		
16	Number of children (under 15 years old) living in the house		

17	Years of formal education of your wife/husband/fiancée		
18	Years of formal education of your father		
19	Years of formal education of your mother		

Economic Performance Indicators

0.1 Labour and income (2011)

20	Employment status	[1] [2] [3] [4] [5] [6] [7] [8] [9]	Full-Time Employed (30 hours or more) Part-Time Employed (less than 30 hours) Self-Employed Unemployed Student Household Work Retired Unable to Work Other. Specify
21	Sector of employment	[1] [2] [3] [4] [5]	Agriculture Fishery Manufacturing Trading Others. Specify
22	Employment status of your wife/husband/fiancée (if any)	[1] [2] [3] [4] [5] [6] [7] [8] [9]	Full-Time Employed (30 hours or more) Part-Time Employed (less than 30 hours) Self-Employed Unemployed Student Household Work Retired Unable to Work Other. Specify
23	Sector of employment of your wife/husband/fiancée (if any)	[1] [2] [3] [4] [5]	Agriculture Fishery Manufacturing Trading Others. Specify
24	Monthly income of the household in local currency	[1] [2] [3] [4] [5] [6]	2,500 – 5,000 Rs. 5,000 – 7,500 Rs. 7,500 – 10,000 Rs. 10,000 – 12,500 Rs 12,500 – 15,000 Rs > 15,000 Rs
25	How many hours per week do you work?		
26	How many hours per week does your wife/husband/fiancée (if any) work?		
27	How important from 1 (min) to 10 (max) are theseincome sources for the household's livelihood?	[1] [2] [3] [4] [0]	Remittances Sri Lanka's Government subsidies Donations and grants from other institutions and Organizations Others. Specify. No

0.2 Consumption (2011)

28	How would you judge your standard of living in terms of consumption goods?	[1] [2] [3]	Very good Good Sufficient

		[4] [5]	Mediocre Not sufficient
29	Does it happen to you to have problems in buying or providing daily meals?	[1] [0]	Yes No
30	How much do you usually spend for food per month within your household? (in local currency)		
31	How much do you manage to produce by yourself for consumption?	[0] [1] [2] [3] [4] [5]	Nothing Little Much Very much Everything Not applicable (no self consumption)
32	Do you usually spend money for these goods and services?	[1] [2] [3] [4] [5] [0]	Private medical consultation fees Not reimbursed medicines Cigarettes and tobacco/alcohol/gambling Entertainment and leisure (pic nic, restaurants, cinema, DVD, theatre, sport etc.) Others. Specify No
33	Does your household own any transportation mean? If yes, please specify if it is necessary for your **business (B) or personal (P):**	[1] [2] [3] [4] [5] [0]	Truck Van or car Tractor Motorbike or three-wheel Bicycle No

Loan or credit-related questions

0.3 Microcredit

34	Who gave to you the first loan in your life?	[1] [2] [3] [4] [5] [6]	Bank AMF MFI (other than Agro Micro Finance) Family member or close friends Others. Specify. Never received a loan
35	If the previous answer is [1], [2] or [3], how did it happen?	[1] [2] [3] [4] [5]	I *did not need* a credit and they (Bank, AMF, other MFI) went to my place to offer the possibility of obtaining one I *needed* a credit and they (Bank, AMF, other MFI) went to my place to offer the possibility of obtaining one I needed a credit and I **spontaneously** went to their place to ask for it (Bank, AMF, other MFI) I needed a credit and I went to their place (Bank, AMF, other MFI) to ask for it, *because of other people's suggestion* Others. Specify
36	How important was the support provided by AMF after the tsunami for your economic recovery (whether in terms of a new loan or in better conditions for the repayment of a previous loan)?	[1] [2] [3] [4] [5] [9]	Critical Very important Important Not that important Indifferent N/A
37	How far was your house from the AMF's office (in km) at the time of your first loan?		
38	Were you able to repay the loan obtained before the tsunami, soon after this event?	[1] [0]	Yes No

In the period 2007- today:

39	Have you ever stopped receiving or repaying loans from/to AMF?	[1] [0]	Yes No
39.1	Is yes, why?	[1] [2] [3] [4] [5] [6] [7] [8]	Impossibility to repay the loan Conditions too strict Co-signers refused to pay for me No need for a loan AMF refused Other. Specify. Do not remember Refuse to answer
39.2	Have you started receiving loans once again from AMF?	[1] [0]	Yes No
39.3	If yes, when?		

For the year 2011…

40	Have you borrowed from AMF during this year?	[1] [0]	Yes No
41	Are you currently repaying to AMF?	[1] [0]	Yes No
42	If 40 **or** 41 are yes, why did you take the loan? If 40 **and** 41 are no, go to question 45.	[1] [2] [3] [4] [5] [6]	Start a new business Improve the outstanding business Recover the damaged business Change business Consumption Others. Specify
43	How would you judge the loan granted by AMF?	[1] [2] [9]	Sufficient Insufficient N/A
44	How would you judge your attendance to the monthly-meetings?	[1] [2] [3] [4] [5] [9]	Excellent Very good Good Seldom None N/A
45	Have you asked for money, apart from Agro Micro Finance, and were refused?	[1] [2] [3] [4] [0]	Bank MFI (other than Agro Micro Finance) Family member or close friends Other people/others. Specify. No
46	Have you obtained loans, apart from AMF?	[1] [2] [3] [4] [0]	Bank MFI (other than Agro Micro Finance) Family member or close friends Other people/others. Specify No
47	If yes, was the sum of these amounts greater or smaller than the one granted by AMF?	[1] [2] [3] [9]	Greater Smaller The same N/A

48	Please indicate if you/people you know have received these different types of aid		You (y)	Relatives (r)	Others (o)
	a. Money				
	b. Credit				
	c. Food				
	d. Medicines				
	e. Raw material for repairing/rebuilding your house				
	f. Tools				
	g. Consumption				
	h. Others. Specify.				

49	Have you lent money?	[1] [2] [3] [0]	Family members Close friends Other people. No

0.4 Savings

50	How much did you save during the last year?	[1] [2] [3] [4] [5]	Very much Much Pretty much Not much Not at all

Happiness, life satisfaction and self-esteem

51	All considered you would say that you are:	[1] [2] [3] [4] [5]	Very Happy Happy Quite happy Not too happy Not at all happy
52	All considered, how satisfied are you with your life from 1 (not at all satisfied) to 10 (fully satisfied)?		
53	All considered, which is your level of self-esteem from 1 (no self esteem at all) to 10 (full self esteem)?		

Social Capital

54	Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?	[1] [2]	Most people can be trusted Have to be careful
55	How much do you agree on the following statements		a) "*Nowadays, you can't rely on anybody"* [1] Agree [2] Neither agree or not agree [3] Disagree [4] Can't choose [5] Refuse to answer b) "*If you are not careful, other people will take advantage of you*" [1] Agree [2] Neither agree or not agree [3] Disagree [4] Can't choose [5] Refuse to answer *c) If I suffer a serious wrong, I will take revenge as soon as possible, no matter what the costs* Agree [1] Neither agree or not agree [2] Disagree [3] Can't choose [4] Refuse to answer [5]
56	Do you belong to any group?		[1] yes - [0] no
	a. Sporting group		
	b. Neighbour group		
	c. Religious group		
	d. Community groups		
	e. Cultural group (music, dance, etc.)		
	f. NGO		
	g. Political Party		
	h. Other. Specify		

Health

57	All considered, how would you judge your level of health from 1 (not at all satisfied) to 10 (fully satisfied)?		

58	What is your weight (in kg)?		
59	What is your height (in cm)?		

Wealth

60	Does the house where you live belong to your family?	[1] [0]	Yes No
61	If yes, do you have?		Bedrooms (number) Bathrooms (number) Toilets (number) Kitchen
62	How far was your house located from the coast at the time of the Tsunami? (in km)		
63	Did you make any of the following dwelling improvements to your house? (in the period 2007-2011)	[1] [2] [3] [4] [5] [0]	New walls When? _____ New floors When? _____ New roof When? _____ New sanitary services When? _____ Other. Specify When? _____ No
64	What material are the walls of the main dwelling predominantly made of?	[1] [2] [3] [4] [5] [6] [7] [8] [9]	Stone, Brick/Block Mud/Wood Mud/Cement Wood only Corrugated iron sheet Grass/Straw Tin Other. Specify
65	What material is the roof of the main dwelling predominantly made of?	[1] [2] [3] [4] [5] [6] [7]	Corrugated iron sheet Tiles Concrete Asbestos sheet Grass Tin Other. Specify
66	What is the main source of water for the household?	[1] [2] [3] [4] [5] [6] [7] [8] [9] [10[11	Piped into dwelling Public tap Tube-well/borehole with pump Protected dug well Protected spring Rainwater collection Unprotected dug well/spring River/Lake/ponds/streams Tankers/Truck/Vendor Bottled water Other. Specify
67	What type of toilet facilities does the household use?	[1] [2] [3] [4] [5] [6] [7]	Flush toilet Ventilated improved pit latrine Uncovered pit latrine Covered pit latrine Bucket None Other. Specify
68	Which of the following things does your household own?		Yes [1] no [0]
	a. TV, DVD player		
	b. Mobile phone		
	c. Fridge		
	d. Water pump		
	e. Plowing machine		
	f. Gas stove		

Video questions

69	Which of the following the video mostly remind you about?		Solidarity (Altruism / Cooperation)____ Looting (Opportunism)____ Calamity (Tsunami/Natural disasters)____

Recalling Tsunami

70	Immediately after the Tsunami, what did you mostly experience: solidarity/Altruism/Cooperation**or**Looting / Opportunism?	[1] [2]	Solidarity (Altruism / Cooperation) Looting (Opportunism)

Post traumatic stress disorder

When thinking about the 2004 tsunami...

71	Your pain was caused by an accident resulting in injury **If you have answered "false", STOP HERE, otherwise continue with the next questions**	[1] [0]	True False
72	You feel upset or nervous when exposed to events that remind you of the original accident that brought about your injury	[1] [0]	True False
73	Since the injury, you find yourself avoiding places or activities that would remind you of the accident	[1] [0]	True False
74	You have recurrent and intrusive recollections of the events surrounding your accident or injury	[1] [0]	True False
75	You have experienced recurrent dreams about the events surrounding your accident or injury	[1] [0]	True False
76	Since the injury you have become "wound up" and startle easily	[1] [0]	True False
77	You have suddenly felt or acted as if the accident were recurring because of some incident or thought that reminded you of the original events causing your injury	[1] [0]	True False

Recalling Tsunami

What kind of damages did you suffer from the tsunami?		a) Family members
	[1]	Dead
	[2]	Permanently injured
	[0]	No
		b) House
	[1]	Totally damaged
	[2]	Partially damaged
	[0]	No
		c) Economic activity
	[1]	Totally damaged
	[2]	Partially damaged
	[0]	No
		d) Buildings/assets
	[1]	Totally damaged
	[2]	Partially damaged
	[0]	No
	[1]	e) Working tools
	[2]	Totally damaged
	[0]	Partially damaged
		No
		f) Raw materials
	[1]	Totally damaged
	[2]	Partially damaged
	[0]	No

APPENDIX C – THE VIDEO

ENGLISH VERSION OF THE SCRIPT

The December 2004 Indian Ocean tsunami produced catastrophic damage along Sri Lanka's eastern and southern coastlines. About 100,000 homes were destroyed and 65% of the country's fishing fleet was damaged or lost.

The international public response to the December disaster was impressive, as local and international communities contributed an unprecedented volume of assistance to the affected countries. In the first days, efforts concentrated on saving and preserving lives, before quickly turning to the prevention of disease. In Sri Lanka, 51 welfare centres were opened up on the day of the disaster, and more than 600 more within one week. Shelter, food, water, clothing, sanitation and medicine have all been provided. Designated areas have been created where children can safely play and recover from the trauma they have suffered.

Families were assisted through cash grants, cash for work, and microfinance programmes: 21,522 families in all affected districts have been able to reach a better standard of living. About US$ 55.2 million have been invested in the national road rehabilitation and in the reconstruction of access roads, irrigation and village roads and about 2.2 million of US$ have been used for the reestablishment of community based organizations, reconstruction of basic village-level infrastructure facilities, and reconstruction of damaged local government and district offices in the South of the country.

The video is available at: https://www.dropbox.com/s/8fgtfsl53ykroxq/Sri%20Lanka%201.mov